

# California Comes of Age: Governing Institutions, Planning, and Public Investment

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# Summary

By the late 1990s, policymakers and the press in California had raised alarm about the state's infrastructure "crisis," pointing to problems such as rising traffic congestion, enrollment pressure on colleges and universities, and worries about drought-related water shortages. In response, voters and elected officials increased spending for upgrading and maintaining infrastructure in the state, but their efforts were soon undercut by a series of political crises, including electricity system breakdowns, an unprecedented budget gap, and the recall of a sitting governor. The short-term crises, coupled with more long-standing political concerns about partisan gridlock, persistent voter discontent, conflict between the state and local governments, and other problems, led some observers to ask if the state's governmental system has ceased to function effectively in meeting current and future needs for public investment.

In considering these problems, many commentators point to a supposed "golden era" in California during the years after World War II when state leaders implemented bold plans for investment in systems such as higher education campuses, water supply networks, and highways that became the envy of the nation and even the world. Today's political context of gridlock and short-term crisis management seems to form a sharp contrast to that earlier era, contributing to worries that the state's governance system may have broken down.

This report seeks to answer several questions. How do California's infrastructure concerns relate to its system of governance? What are the origins of current governance challenges for public investment, and what are potential solutions? Can we draw useful parallels between today's dilemmas and those faced by state leaders of the past, and if so, what can we learn from their responses? We address these questions by tracing changes in government decision-making processes for three key sectors – surface transportation, water supply, and higher education – since World War II. Turning to the future, we also evaluate emerging opportunities for governance reform.

We conclude that California has reached a critical turning point in its approach to long-term public investment. The question of whether the state is spending enough on infrastructure seems less important at this juncture than whether Californians know and agree on what sort of future growth and development they want to invest in, and whether effective decision-making systems exist for resolving these issues. In other words, the most fundamental infrastructure challenges today are governance challenges.

The current period forms a parallel with the decade following World War II, when lawmakers faced basic concerns similar to those today – strain on existing facilities resulting from rapid population growth after decades of lagging investment, pressure to enhance educational opportunities in response to economic restructuring, and planning and governance challenges posed by new patterns of urban development. We can learn valuable lessons from the responses of postwar leaders, in particular about the importance of forging compromises among competing interest groups and regions to enable long-term public investment planning and investment to move forward.

But in spite of some basic similarities in the scope of challenges today and those after World War II, California also has changed dramatically. In fact, the very investments of that

period helped transform the state in ways that render similar solutions – huge engineering projects to meet infrastructure needs for decades to come – infeasible now. By the 1970s, real costs had risen significantly for building new facilities, in part because of the very prosperity fostered by infrastructure investments, which raised costs of construction in more built-up urban areas. “Mega-projects” were also made more difficult by a public backlash against negative consequences of growth and development, such as environmental degradation and invasive impacts on urban communities. Since the 1970s, new interests, in particular environmentalists and community activists, have demanded a seat at the planning table, driving up costs for negotiating and mitigating negative effects of development. Voters’ reaction against expansionist growth policy also has been evident in increasing resort to the ballot box, as a series of measures were passed during recent decades constraining governments’ revenue-raising ability and discretion, and restricting new development in some areas.

Growth policy goals, urban development patterns, and decision-making authority all have become more complex and contested during recent decades, even as policymakers also face greater constraints in terms of natural resource limits, health and environmental protection laws, and fiscal and discretionary limits imposed by voters. Governance is complicated by the multiplicity of state, local, and regional infrastructure agencies, often organized on a single-function basis. Transportation planning is complicated by the decentralization of jobs and the rise of more complex commuting and travel patterns. As metropolitan areas expand, economic and environmental goals sometimes directly conflict, for example as remaining sources of air and water pollution are increasingly traced to urban residents and their automobiles, and as endangered species laws restrict land development and diversion of water supplies to urban or agricultural uses. Meanwhile, the rise of global economic competition and a knowledge-based economy place an ever greater premium on a highly educated workforce, but funding constraints have led to growing pressure on higher education facilities that now must serve a more diverse student body. In addition, steep increases in student fees have signaled the erosion of the state’s commitment to universal access enshrined in the 1960 Master Plan for Higher Education.

Given the context of complexity and constraint, state leaders have been unable to pursue bold investments on the scale of the past. Planners and policymakers have shifted their priority from building new physical capacity as the principal method for meeting future infrastructure needs, seeking instead to maintain existing systems and encourage more efficient use of resources and facilities. Alongside, an imperative has emerged to more effectively balance and integrate the sometimes competing public sector goals of economic development, environmental protection, social equity and efficient use of public resources. The need for policy integration also leads many reformers to seek a decision-making scale that better matches natural, social, and economic systems – often the bioregional and metropolitan scales.

This imperative has prompted a revision of traditional planning and governing arrangements, which are no longer as suitable for contemporary needs. In particular, the top-down, single-function, engineering-driven approach to planning that was a hallmark of the postwar era is now increasingly viewed as ineffective. In higher education, fiscal constraint and demographic change are forcing a reevaluation of goals and governing arrangements of the long-venerated Master Plan for Higher Education, which has guided state higher education

policy since the postwar era. In the transportation and water sectors, reforms already underway signal the emergence of a new governance approach that devolves planning authority from single-function state bureaucracies to more collaborative, often regional decision processes among different levels of government, across jurisdictions, and across different policy areas. A major objective of this devolution is to reintegrate planning for infrastructure and the environment with local land use policy. Another important trend has been the development of outcome-oriented performance standards, which help provide policy focus and accountability in these more complex and collaborative planning and governing arrangements.

An example of the collaborative approach to governance is CalFed, an ongoing planning effort among federal, state, and local governmental agencies, as well as environmental, business, and other organizations, to resolve water supply and quality issues in the San Francisco-San Joaquin Bay Delta region (the hub of the state's largest water system). Such negotiations look nothing like the grand engineering projects of the past, and yet CalFed is the direct descendant of Governor Pat Brown's fabled State Water Plan (passed by voters in 1960). Rather than an engineering plan for extensive new conveyances, CalFed is fundamentally a political process among competing users and needs to stretch existing water resources further.

When successful, new collaborative initiatives have been able to cut through years of conflict among warring interest groups. They have identified innovative ways to make more efficient use of infrastructure and to balance more complex public sector growth policy objectives. In today's policymaking context of voter discontent, partisan gridlock, limited governmental discretion, and fiscal constraint, these initiatives provide some hope that more deliberative, comprehensive, and cooperative decision-making may emerge. But these efforts also are vulnerable to many obstacles. Plans devised through largely voluntary processes have been susceptible to dissolution once funding and regulatory decisions are taken up by legislative bodies and administrative agencies. Many governance and fiscal incentives deter coordination – for example, conflicting, uncoordinated state mandates, a lack of institutional support for regional-level coordination, and a failure to closely match benefits and costs through taxes and fiscal authority to promote efficient use of public resources.

In the more complex and built-up California of today, the major imperative for state leaders is no longer to provide for massive investment in new physical infrastructure. Instead, the focus has shifted to managing growth and infrastructure strategically. This objective will require effective governance and fiscal arrangements to promote fiscally and environmentally sustainable investment. Effective state reforms should accomplish three inter-related goals: align incentives and costs (responsibility and authority), provide a policy focus through performance-oriented goals and objectives, and foster coordinated decision-making on implementation.

Another key to effective growth planning will be to acknowledge and address voters' skepticism about government and their desire for fiscal constraint. Policymakers and civic leaders might seek to promote more comprehensive dialogue and debate on coordinated investment plans, while also respecting voters' expressed preferences for local control, intergovernmental cooperation, ballot-box decision-making, and targeted investment. One such approach might authorize regional revenue-raising authority, subject to voter approval, to fund coordinated environmental and infrastructure improvement plans. For example, such a

package might include parks and open space along with transportation improvements and incentives to local governments to orient their land use plans toward regional goals and objectives.

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# Introduction

This report assesses the governance challenges of public investment in California – the state’s capacity to make and implement forward-looking decisions to maintain and enhance its quality of life and to meet future needs for public infrastructure. These governance concerns do not come to the forefront very often. When public infrastructure is working – schools, highways, or utility systems, for example – most of us do not think about it much at all, let alone consider governance issues. When facilities become crowded or rundown, we tend to think about updating facilities or building new ones to accommodate increased demand. Thus, infrastructure investment is often considered first as a technical or financing challenge, with the institutional framework for deciding what is needed and how to deliver it taken mostly for granted.

But all plans for large-scale public facilities depend on underlying social and political agreements about the goals and objectives to be met through public investment, and on public institutions to carry them out. (The term *governance* encompasses more than formal institutions and programs; it also includes negotiating agreements about “how to decide” and on goals of public investment.) Stable political agreements are especially critical for infrastructure investment because large-scale facilities often require long-term commitments to planning, investment, and management. Thus, in fundamental ways, governance is central to infrastructure investment, and at certain critical points this aspect may come to the forefront. If pressures on existing institutions rise to the degree that traditional expectations cannot be met, or if those expectations themselves change significantly, then the institutional framework for public investment may need to be revisited. Fortunately, such major turning points are rare, for they may be experienced as crises (such as during the Great Depression). But these turning points may also provide opportunities for adapting or redefining institutions to meet changing needs.

Has California reached such a turning point? Some recent developments suggest it may have. By the late 1990s, the notion of a state infrastructure “crisis” had become commonplace among the press and policymakers, as a series of state-level policy reports indicated high levels of need for investment in new capacity, and for rehabilitation and maintenance of existing facilities.<sup>1</sup> Although voters and elected officials increased spending in these areas, their efforts were soon undercut by a series of immediate crises – massive electricity system breakdowns, an unprecedented budget gap, and recall of a sitting governor, in particular. The state government’s response to its budget problems, which included cuts in access to higher education and legislative “raids” on funds reserved for transportation, only renewed concerns about long-term infrastructure needs. Some might conclude that “crisis” has become a constant state of affairs.

More long-standing political concerns also contribute to doubts about the government’s ability to respond effectively to public investment needs. Voters indicate a lack of confidence in

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<sup>1</sup> See California Legislative Analyst’s Office (1998a); California Business Roundtable (1998); California State Treasurer (1999); Center for the Continuing Study of the California Economy (1999); Neuman and Whittington (2000); California Commission on Building for the 21st Century (2002); Dowall and Whittington (2003).

their government. With a political system marked by partisan gridlock, budget deficits, and persistent antagonism between the state and local governments, it may be little wonder they feel as they do. Seasoned observers also raise concerns about institutional features that hamstring the state's representative government – such as frequent ballot initiatives, term limits, and reapportionment methods that lock in safe seats for Democratic and Republican legislators. Others warn that fiscal and programmatic features of the state government are not cohesive, producing chronic budget deficits and conflicting mandates for local governments, among other problems.

In the face of these daunting challenges, many citizens, scholars, and media commentators have pointed to a golden era in California's past when its leaders were widely seen as stepping to the plate to meet future challenges. Specifically, under the leadership of Governors Earl Warren (1943-53), Goodwin Knight (1953-59), and particularly Edmund "Pat" Brown (1959-67), the state invested heavily in new infrastructure, building the "crown jewels" – the higher education, water supply, and highway systems – that became the envy of the nation and even the world.

This report seeks to answer several questions. How do California's infrastructure concerns relate to its system of governance? What are the origins of current governance challenges for public investment, and what are some potential solutions? Can we draw useful parallels to dilemmas faced by state leaders of the past, and if so, what can we learn from their responses?

We discuss the direction and trajectory of change in the policymaking system, examining trends in three sectors – surface transportation, water supply, and higher education. We focus upon decision-making institutions at the state, local and regional levels. We trace the origins of current challenges back to the postwar era, considering not physical infrastructure needs so much as the state's changing political and institutional arrangements. We then consider how planning challenges have changed since the postwar era, and how – or if – the policymaking system has been modified. Looking forward to 2025, we evaluate emerging opportunities for governance reforms to improve the state's ability to confront its challenges.

# Setting the Context: The Historical Roots of California's Infrastructure Challenge

Why look back several decades in California history when considering current and future challenges for public investment in California? First, the large public projects passed and largely built during Pat Brown's tenure, including the State Water Project, the Master Plan for Higher Education, and the state highway system, helped shape California's development and still frame current policy debates.

Second, many features of the decision-making framework established then persist, creating certain incentives and disincentives for action by public agencies. It is helpful to consider how and why those governing and planning institutions were created.

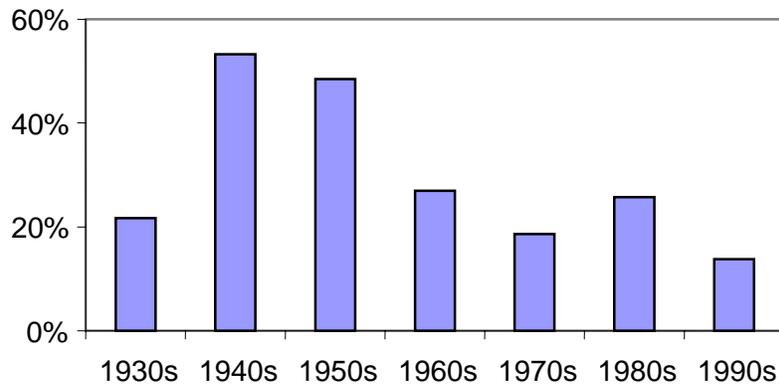
Third, the political context of that era provides a useful comparison to current circumstances. In some ways, the challenges policymakers face today are strikingly similar to those 50 years ago. In particular, demographic change, industrial restructuring, changes in the patterns of urban development, and concerns for limiting the fiscal commitments of the state general fund were major considerations then, as now. In spite of how much has changed in the intervening years, we can learn some important lessons by considering how postwar leaders responded to the challenges.

## California's "Mega-Project" Era: A Response to Growth Pressure

A number of factors coincided in California after World War II to prompt a more activist approach by the state government to help guide urban growth and foster economic development. Confidence in government was high, but the challenges also were considerable.

Like today, lawmakers were concerned about the need to expand infrastructure facilities following decades of high population growth and lagging investment. During the Great Depression and World War II, many projects such as new roadways had been placed on hold. The war launched California as a major economic power (with state industries securing 10% of federal production contracts), which in turn helped fuel a postwar economic boom as many returning veterans chose to settle in the state (Hise, 1997). Population nearly doubled from 1945 to 1965. Figure 1 shows growth rates by decade, illustrating the breathtaking increases during the period.

**Figure 1**  
**Population Growth Rate in California by Decade, 1930-2000**

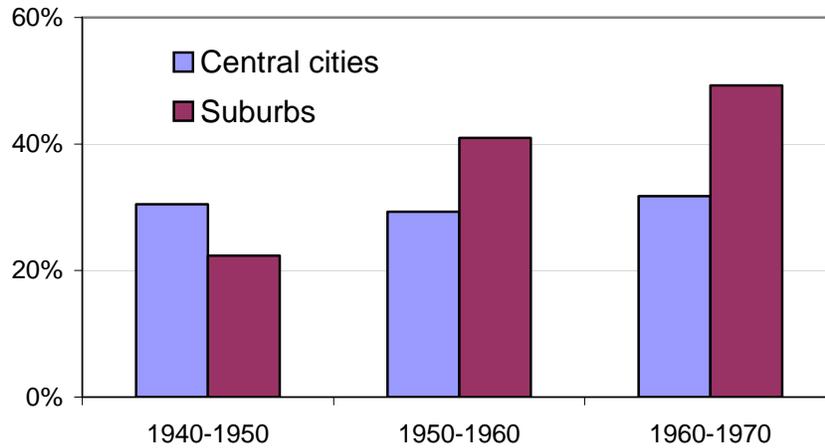


SOURCE: California Department of Finance (n.d.).

Lawmakers hardly felt complacent about economic success, however, especially in the immediate postwar years, with the prospect of high unemployment among veterans and displaced war industry workers, and the challenge of converting to a peacetime economy. The experiences of the Great Depression and the war convinced many that government activism was necessary to ease economic downturns and support economic growth. State leaders called for expanding education and training especially to meet the needs of the state's emerging high-tech industries (Douglass, 2000). The success of wartime government-business partnerships led to postwar support for policies such as the federal government's GI Bill.

Postwar prosperity propelled a boom in suburban development, fueled by economic prosperity and public policy. One hundred new municipalities, mostly suburbs, were incorporated in the state during the 1950s and 1960s. Families took advantage of federal homeownership assistance, while new roads fueled job decentralization. Financing and service-delivery innovations, such as special-purpose districts, enabled smaller suburban jurisdictions to escape dependence on central cities (Fishman, 1987; Hise, 1997; Pincetl, 1999).

**Figure 2**  
**Share of State Population Growth by City Type, 1940-1970**



SOURCE: Population data are from California Department of Finance (n.d.). Central city, urbanized, and metropolitan area definitions are from the 1970 U. S. Census.

NOTE: Suburbs are all cities except central cities in urbanized portions of metropolitan areas.

California's young and relatively homogeneous population was willing to support investments in education and transportation, since many would directly benefit if new schools and roads were built. In 1960, 92 percent of the state's population was white (including Hispanics) and the same proportion was native-born. Even among the foreign-born, most were native English-speakers from Britain and Canada (Schrag, 1998, p. 57).

In spite of public support for new infrastructure investment, certain governance obstacles still forestalled large-scale efforts to expand facilities. For example, suburbanization posed planning challenges for transportation and water supply. In earlier decades, central city governments had built many of the large infrastructure projects. However, plans languished during the Depression and war years (Jones, 1989). Even after prosperity returned, however, local governments proved unable to muster the investment and coordination to address regional needs. Suburbanization was transforming metropolitan areas into aggregates of multiple, diverse jurisdictions, making governance and financing more problematic for large-scale projects. Disputes arose within some metropolitan regions about such concerns as transportation needs, air pollution, and degradation of natural resource areas, prompting local governments and business leaders to petition the state for help in resolving conflicts<sup>2</sup> (Scott and

<sup>2</sup> Regional inter-governmental coordination became a contested issue in some cases, especially in the San Francisco Bay Area where local governments attempted to coordinate policies among themselves to avoid intervention from the state. Nevertheless the state intervened to establish regional authorities for

Bollens, 1968; Kent, 1983; Jones, 1983; Scott, 1985; Jones and Rothblatt, 1993; Wachs and Dill, 1999). Reacting to these developments, state lawmakers voiced alarm about fragmentation in local government, noting the proliferation of new suburban jurisdictions and hundreds of new service districts (Governor's Commission on Metropolitan Area Problems, 1960).

Similarly, inter-regional disputes also arose as proposals were advocated for expanding state water supplies and college and university campuses. By the postwar era, a majority of the state's population lived in the relatively arid southern part of the state, but Northern Californians rejected proposals to send any of "their" water southward. Proposals for rapid expansion of college campuses in the state also led to fierce competition among regions and among different segments within the higher education community.

Thus, a number of factors coincided in the postwar years to prompt a more activist approach by the state government, but governance obstacles still hindered a coordinated approach. Perhaps not surprisingly, Republican Earl Warren, the state's first post-war governor, argued for an activist state government and for investment in higher education, roads, public buildings, aqueducts, and parks (Douglass, 2000). Funding was increased dramatically in these areas. However, underlying political tensions remained unresolved. Although various proposals were made for coordinated state policies in numerous arenas, conflicts among interest groups and regions frustrated many efforts (Douglass, 2000). Furthermore, state spending increased without the need for tax hikes because a large state budget surplus after the war delayed the need for tax reforms.

In 1958, a set of circumstances converged to provide a ripe context for rapid and dramatic reform and resolution of long-standing conflicts. Pat Brown gained the governorship in a landslide election that also ushered in the first Democratic-controlled legislature in the 20<sup>th</sup> century.<sup>3</sup> With the legislature behind him, Brown had support to implement broad-reaching reforms. As the economy entered a recession, pressure to sustain spending for social services led to large deficits. This focused lawmakers on the need for efficiency and policy rationalization (Douglass, 2002). At the same time, rapid population and job gains had convinced lawmakers that growth was inevitable and had to be accommodated. As young migrants continued arriving in California, and baby-boom children reached school age, support for expanding education remained high (Modarres, 2003).

A rise in federal aid for domestic infrastructure also helped propel Brown's expansionist approach to state infrastructure. Particularly in transportation – with passage of legislation in 1956 creating the federal interstate highway program – states took advantage of relatively generous terms of federal domestic partnership during this period. In their historical study of infrastructure investment in the United States, Alan Altshuler and David Luberoff note that most infrastructure "mega-projects" of the 1950s and 1960s "were undertaken within contours of opportunity defined by federal programs and with substantial, often predominant, federal

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transportation planning and bay preservation after local governments were unable to resolve differences and develop concerted strategies (for more on early regionalism in California see Barbour, 2002).

<sup>3</sup> The political realignment in favor of Democrats was aided by the end to the practice of nonpartisan "cross-filing" in primary elections in the 1950s. Court-ordered "one man, one vote" legislative redistricting in 1964 further improved the fortunes of Democrats and urban legislators.

financing. They were frequently carried out, moreover, by state agencies and regional authorities, leaving just a minor role in the formal sense for local governments” (2003, pp. 6-7).

Thus, Governor Brown had legislative and popular support along with federal largesse to expand government’s role. But just as important, lawmakers demanded better policy coordination and well-targeted spending. This combination of factors provided Brown with the necessary leverage to broker the difficult political deals that constitute the basis of his fabled achievements.

The major projects of this era still rank among the most identifiable of the state’s accomplishments, and are justifiably attributed in part to Brown’s leadership. But none represented a radical departure from his predecessors. As the following sections of this report delineate, the basis for the long-term investment plans ratified under Brown’s leadership for transportation, water supply, and higher education was laid in policy discussions and proposals that preceded his governorship. Instead, Brown’s effectiveness lay in his ability to translate the prevailing sense of urgency about the need for more efficient, coordinated state growth policies into pressure to force political compromises. Brown brokered resolutions of persistent conflicts among warring interest groups about resource allocation, translating pending proposals into long-term commitments. Brown also galvanized popular and legislative support for the revenues necessary to fund new projects, by gaining the first significant tax increase since the early 1940s and the first large-scale use of bonds for capital construction.

These lessons remain relevant for state leaders today. Brown’s leadership role suggests that at a critical turning point in state investment policy, the most important priority for leaders may be to broker compromise among conflicting viewpoints and interests, in order that consensus on a way forward may be articulated.

The long-term plans ratified under Brown’s leadership were in turn consolidated in new institutional arrangements. These institutions were single-purpose and functionally oriented. They allowed the state to build coordinated facilities that provided higher service levels on a state scale. They also overcame the blockages caused by factional and inter-regional infighting and fragmented governing arrangements that had become too costly for the state to ignore. Thus, in large part Brown’s success, and its lasting legacy, is as much in the political consensus and institutional structures he fostered as in the physical systems themselves.

## *A Statewide Freeway System*

To help overcome finance and planning challenges posed by postwar suburbanization, the federal and state governments stepped in to take over the development of large-scale transportation systems. In the process, California’s governance system for urban planning was transformed just as profoundly as the state’s physical landscape. However, in this policy area – unlike water supply and higher education – the recognition of governance challenges was so widespread, and the role of federal largesse in highway building so overpowering, that Governor Brown’s role as a broker of compromises was less critical in determining the outcome.

Postwar California “set the pace and standard for metropolitan highway development in the United States” (Jones, 1989, p.1). The state government was the first in the nation to make a

substantial, sustained commitment to metropolitan freeway construction after World War II. Under Pat Brown's leadership, the pace of building reached full throttle. The state highway system, today worth \$300 billion (California Department of Finance, 2003a), is the largest public works project built in the U.S. by a single organization (Taylor, 1992).

The State Highway Plan, adopted in 1959, was the culmination of policies since the 1920s that gradually consolidated the state government's role in urban road-building. In 1923, California instituted one of first state gasoline taxes, but funds were directed to rural road maintenance. During the Great Depression and World War II, the state and federal governments gradually adopted a larger role in planning and funding highway expansion in urban areas. During the same period, private rapid transit systems – the prevalent form of urban mass transport during earlier decades – were unable to compete with increasing car use and many faced bankruptcy. Local governments persistently lobbied the state to adopt a stronger role as local property tax revenue – the traditional funding source for transportation – flattened out during the Depression, while the state gas tax produced more revenue because of rapidly rising car use. Los Angeles developed the earliest and boldest plan for metropolitan freeways in the nation in 1939, the first at a scale designed to serve commute traffic in high volumes (Jones, 1989).<sup>4</sup> City leaders pressured the state government for funding.

State legislation in 1947 (the Collier-Burns Act) marked a watershed, as the State Division of Highways was assigned major responsibility for designing and building urban freeways (Jones, 1989). Motor vehicle fees were increased and a highway trust fund established. A new geopolitical compromise between north and south was ratified in a commitment to counties for a guaranteed minimum in annual highway aid (Taylor, 2000).

At the national level, passage of the 1956 Interstate Highway Act set the freeway-building era in full motion. Burgeoning fuel tax revenues financed a new highway trust fund. Congress committed \$28 billion to build a 41,000-mile Interstate Highway System with funds provided on a nine-to-one matching basis to states (Jones, 1989). State and federal revenue for highways in California quadrupled from 1947 to 1961 after adjusting for inflation (Taylor, 1992).

State highway departments, such as California's Division of Highways (later renamed the California Department of Transportation – CalTrans) took the lead in planning and construction even for the federal system.<sup>5</sup> In 1958 the Division of Highways prepared a dramatic \$10.5 billion twenty-year statewide plan of freeways and expressways. In all, 12,240 miles of highway would be upgraded to limited access design in a latticework system based on the Los Angeles model. The plan met with near-universal local and legislative support (Jones, 1989; Taylor, 2000). From 1956 to 1972, more than 1,300 centerline miles (12,700 total miles) of new freeway were added, increasing state system miles by 28% (CalTrans, n.d.).

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<sup>4</sup> The boldness of Los Angeles' plan lay less in any technical achievement, however, than in the massive scale that was envisioned (Jones, 1989). It would have required annual expenditure nearly fifteen times greater than the sum spent by the city thus far for all highway purposes, and one and a half times larger than the sum of all highway expenditures throughout the state by 1939.

<sup>5</sup> The federal legislation of 1956 assigned states the major responsibility for designing and building urban freeways (Rose, 2003).

Thus, the federal and state governments came to dominate large-scale transportation planning to address finance and planning challenges posed by suburbanization. But in the process, transportation planning and finance were disconnected from general land use planning, which remained the prerogative of local governments. Federal and state priorities differed from city priorities, and since state and federal gasoline taxes were paying the way and state and federal bureaucracies were implementing the plan, their prerogatives won out.

For example, although Los Angeles's highway aspirations helped prod the state, the freeway system eventually built there differed markedly from the city's original vision. The initial Los Angeles plan emphasized regional parkways integrated with transit lines and park and recreation facilities. This plan was jettisoned in favor of uniform federal and state highway design standards (with higher speeds, more grade separation, wider lanes, and longer ramps) imposed without regard for potential joint development with transit or local redevelopment (Jones, 1989; Taylor, 1992; Wachs and Dill, 1999).

Furthermore, as gas taxes had come to replace property taxes as the main revenue source for transportation, the finance system could no longer capture the increases in land values produced by transportation investments in particular locales. Yet transportation and land use are so intimately connected in practice that their planning relationship could not actually be completely severed – instead, it was reoriented. The state and federal approach supported a particular pattern of local land use – auto-dependent suburban development. A goal of many early metropolitan expressway plans had been to help stem the decline of downtown areas by directing suburban traffic toward city centers and to connect transportation plans to land redevelopment objectives (Taylor, 1992). State highway planners rejected such objectives (which would have required far more protracted intergovernmental planning), preferring to distribute the rise in suburban traffic around regions and in general to “interfere as little as possible with metropolitan land uses” (Taylor, 1992, p. 69). In other words, highway planning viewed decentralization and rising car use as givens, and sought to build capacity to accommodate them.

### *A State Water System*

California's aggressive efforts to secure water supplies have been at the heart of the state's growth (Hundley, 2001). Water policy followed the same general pattern as for transportation. In the postwar era, the state government adopted a more active and dominant role in order to develop a statewide system. This required a monumental engineering feat in a state in which the majority of residents lived in the south, but the majority of water originates in the north. More important for our purposes, this also required an equally impressive political feat, as Governor Brown secured the support necessary to build the world's largest and most complex hydraulic system.

As in the case of transportation and education, early in the century, local governments were the most ambitious builders. For example, Los Angeles and San Francisco built aqueducts not only to meet existing needs but also to help propel new growth. Attempts to devise and implement a state water plan during the 1920s and 1930s evolved into a more limited effort – the Central Valley Project (CVP) – to deliver water from the Sacramento River to the San Joaquin Valley, where depletion of groundwater threatened the viability of agriculture. The

CVP, today the state's largest single water supplier, was approved by the state legislature in 1933. However, it was soon transferred to the federal Bureau of Reclamation because of funding constraints (Hundley, 2001). Bureau policies established in 1902 aimed to support small farmers through a 160-acre limit imposed for farms receiving federally developed water at subsidized prices. However, loopholes in the rule and lax enforcement ensured that large California growers also benefited (Reisner, 1993; Hundley, 2001).

During the postwar boom years, the state government moved to coordinate a system for increasing supplies statewide, responding especially to calls from San Joaquin Valley farmers whose increased production (facilitated by the CVP) had led to renewed overdrafting of groundwater (Reisner, 1993). In 1945, the Water Resources Board was established to inventory supplies; it issued a report in 1951 focusing on the needs of Southern California. The greatest challenge was seen as redistributing water from areas of surplus (the north) to areas of deficiency (the south) (Hundley, 2001).

The same year, the State Engineer released an audacious proposed California Water Project plan; the Feather River would be dammed and a conveyance constructed to direct water south along a 750-mile route first to the San Francisco Bay delta, then through an aqueduct to the San Joaquin Valley, and from there to Southern California. The plan contemplated building two of the world's biggest dams, the world's longest aqueduct, and – to bring the water uphill and over the Tehachapi Mountains in Southern California – the world's highest pump lift surmounted by the world's most powerful pumps (Reisner, 1993). In 1956, the Department of Water Resources was established to implement the plan, consolidating 52 other agencies (Hundley, 2001).

However, formidable political obstacles stymied legislative approval to turn this ambitious vision into a reality. Northerners resisted efforts to send water south. Although San Joaquin Valley farmers strongly supported the proposal, Los Angeles – another potential source of support – did not. Because of alternative available sources, supplies adequate for three to six million new Southern California residents seemed secure (Reisner, 1993). Another obstacle was the project's cost, which was projected to be as high as \$3 billion, equivalent to about \$14 billion today.

Governor Pat Brown made passage of the plan a personal crusade on which he staked his political reputation. "I was absolutely determined that I was going to pass this California Water Project. I wanted this to be a monument to me," Brown later recalled (Reisner, 1993, p. 349). Crossing the state to meet with key stakeholders, he offered a series of key concessions. To appease northerners, he offered bond sales for local projects. To reassure southerners, worried about potential future consequences of "county-of-origin" laws stipulating that counties may retain water rising within their boundaries if needed for development, Brown secured an amendment ensuring that water contracts under the plan could not be abrogated while the bonds remained outstanding (projected to be to 2029) (Hundley, 2001).

Costs of the project were downplayed; a bond issue of \$1.75 billion was proposed that would only partially complete it. Nevertheless, the bond was nearly as big as the state budget itself, and the largest considered to that time by any state. Brown secured legislative passage of the measure in 1959. The following year, although voters in 48 of 58 counties voted against the

bond measure for the project, the populous southern counties helped carry the measure, so it squeaked by (Reisner, 1993).

The scale of the State Water Project and the bond measure to pay for it testify to the scale of Brown's political accomplishment. More than the highway and higher education systems, the water system concretely unified the state through a statewide development strategy. But the slim margin of victory for the bond measure, and its only partial payment for the full scope of the conceived plan, show that in this case, the underlying "consensus" was shallow, and further conflicts would likely lie ahead.

### *A Master Plan for Higher Education*

Perhaps more than any of the grand infrastructure systems of the Pat Brown era, California's public system of higher education has drawn attention as a national, even international model. The state's Master Plan for Higher Education, a compact reached under Brown's leadership, provides a strong example of governance reform leading infrastructure development. Fundamentally a commitment to a social contract as well as a set of governance arrangements, the Master Plan still largely frames not only the programmatic but also the facilities requirements of higher education in the state.

In the years after World War II, many states attempted to create more coherent higher education systems. For a large state, California chose a fairly exceptional route in resisting efforts to centralize management. Instead, California's system is based on the relative autonomy and the sharp delineation of missions of its three "segments," now known as the California Community Colleges (CCC), the California State University (CSU) system, and the University of California (UC) system.

This tripartite system traces back to Progressive Era policies (Douglass, 2000). The University of California was established as a "public trust" in the state constitution in 1879, with an unusual degree of autonomy. The legislature could not create new campuses without the consent of the University Regents. California also established the nation's first network of junior (now community) colleges to provide broad access to vocational and lower division courses. By the 1920s, UC's reluctance to build new campuses prompted a "regional college movement" calling for state support in transforming existing teaching and technical colleges into full-fledged liberal arts colleges. These "state colleges" would eventually coalesce as the CSU system. Despite some differentiation of functions, "prior to 1960 California had three independent and uncoordinated systems of higher education" (Disler, 1971, p. 4).

Enrollment demand soared in the postwar years as veterans took advantage of the GI Bill and workers sought training for jobs in manufacturing and technology. Proposals for rapid expansion, especially of state college campuses, brought policymaking turmoil (Smelser and Almond, 1974). UC officials fought attempts by the state colleges to expand into graduate training. Lawmakers aggressively pursued bills to establish campuses, viewed as critical for regional development, in their districts. Segmental leaders, especially UC officials, attempted to resolve differences so as to resist legislative intervention, but negotiations broke down.

By the late 1950s, state lawmakers were eager to reform what they viewed as a chaotic and wastefully competitive policymaking environment. By indicating that he was willing to

exert his full authority to achieve a more orderly path of expansion, Governor Brown helped produce a compromise among segmental leaders that formed the basis for the 1960 Master Plan. Segmental leaders viewed the moment as their last chance to control the outcome and retain autonomy from the state government. Their compact –reached at the eleventh hour under Brown’s watchful eye, and then ratified by the legislature –is manifest in the clear delineation of segmental missions and their relatively autonomous governance arrangements. UC retained virtual monopoly over academic research and the granting of doctoral degrees, while the CSU system, which had feared takeover by UC, gained governing autonomy.

The largest in the nation, California’s higher education system combines the promise of universal access to lower division courses (freshman and sophomore levels) with the promise of ascension by merit to high-quality upper-division and graduate institutions. With ten campuses today, UC is designated the state’s primary research and doctorate-granting institution. Under provisions of the Master Plan, it must offer admission to any California resident in the top one-eighth of his/her high school graduating class. The CSU system, with 23 campuses today, is a regional system whose primary mission is to educate through the master’s degree level, especially to provide technical and teaching degrees. CSU must offer admission to the top one-third of the state’s high school graduates. The 109 locally oriented campuses of the CCC system are charged with providing academic, vocational, and remedial instruction at the lower-division levels, and must admit any student capable of benefiting from instruction. The Master Plan also links these institutions through matriculation policies. This transfer function “makes California’s tripartite system more than the sum of its individual parts” (Douglass, 2002, p. 85)

The tiered structure was promoted as a cost-saving measure, a key for gaining legislative approval. Admissions pools were shifted so as to increase enrollment in the cheaper segments –the CCC and CSU systems. The plan’s clear provisions regarding admissions, transfer, and funding created the basis for orderly planning, including for facilities. The clear framework enabled needs to be estimated using long-term enrollment and demographic projections. The Master Plan also limited the state’s financial exposure by limiting and phasing the creation of costly new four-year campuses (Smelser, 1974).

As John Aubrey Douglass notes, “The Master Plan did not represent a major shift in the policy development of California’s higher education system. Rather, it represented a political compromise at a critical historic moment” (Douglass, 2002, p. 96). That compromise has proved remarkably durable and influential, however. The stable policy environment enabled California to provide high rates of access and high quality at low cost to taxpayers and students, compared to peer state systems (Douglass, 2002).

## **Turning Away from Bricks and Mortar: A Period of Retreat and Transition**

The highways, water systems, and college campuses built during the 1950s and 1960s are still with us. However, the relative confidence and consensus that marked the period are not. That crumbled in the late 1960s and 1970s, remaining weak ever since.

The 1970s marked a turning point in public attitudes about growth, as the changes wrought by the mega-project era produced a public backlash in fairly short order. Even as many voters benefited from earlier investments – for example by moving to suburban communities newly served by freeways and water supply systems – they began questioning the value of more growth, which appeared to threaten their continued prosperity and quality of life. The public imposed new constraints on development that reflected the incorporation of costs overlooked by state leaders (and the voters who supported them) during the postwar building boom.

Large projects – transportation projects in particular – raised protests from local communities disrupted by invasive change. Poorer communities often bore the hardest brunt. As the pro-growth consensus began to erode, the same state-dominated engineering organizations that had seemed efficient for implementing large-scale projects – when backed by widespread public consensus – began to be seen as a liability. As communities perceived a loss of control over local growth, they resisted what increasingly seemed like impersonal, distant bureaucracies. Negotiations with state agencies often became protracted, and costs increased for mitigation of community impacts.

Another aspect of the public backlash was the rise of the environmental movement, which soon made inroads in government. Within only a few years during the late 1960s and early 1970s, state and federal laws were passed for clean air and water, environmental review of development projects, endangered species protection, and toxic waste disposal, among others. Bureaucracies were created to administer these laws, following the same pattern of functional planning that had been pursued earlier for transportation. The basic approach to pollution control involved bureaucratic regulation of specific “point” sources of pollution such as smokestacks and sewer pipes emanating from large industrial plants. Requirements for environmental review had a particularly broad impact on development planning, slowing it down as costs (including environmental damage) of individual projects had to be assessed in order to proceed.<sup>6</sup>

Other new costs of large-scale projects were related to the very prosperity fostered by earlier investments. The Brown era public investment plans helped transform the state’s urban areas, and they became more populated, built-up, and expensive. This raised project costs, for example for purchasing right-of-way in urban areas.

Rising costs also helped provoke an anti-tax backlash by voters. High inflation combined with rapid development to produce steep increases in urban land values, and rapidly rising property taxes during the 1970s prompted a middle class tax revolt. Frustrated voters passed Proposition 13 in 1978, a landmark ballot initiative that dramatically reduced local government property tax revenue, and transferred authority over its allocation to the state

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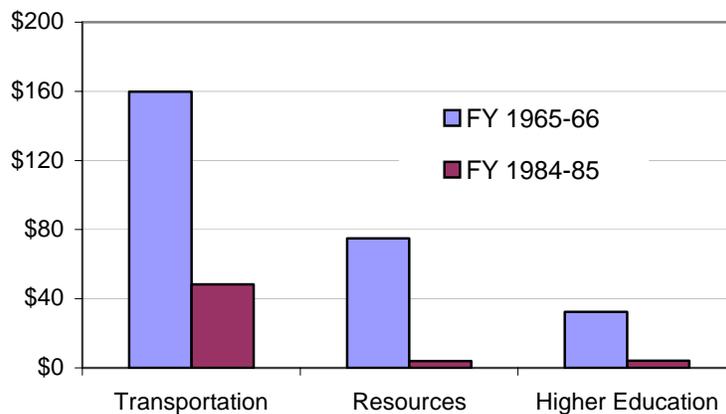
<sup>6</sup> The National Environmental Policy Act (1970) required that projects receiving federal funds prepare environmental impact statements. California’s own “little NEPA,” the California Environmental Quality Act (1970) ultimately went further, with elaborate procedural requirements not only for public projects but also major private building projects requiring government permits or approval. Moreover, buttressing the growing anti-highway movement, the U.S. Supreme Court ruled in 1971 that a “no build” option had to be considered among the alternatives in plans for federally funded highway projects (*Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971)).

government.<sup>7</sup> Other ballot initiatives followed that further constrained government revenue-raising ability.

Thus, the state and federal governments increasingly were forced to absorb social, environmental, and governance transactions costs of investment that had been overlooked in the earlier period or that emerged as a result of the very prosperity the state had enjoyed. The state and federal governments retreated from their role as master builders as advocates of citizen participation, local control, historical preservation, environmental protection, and government fiscal constraint all gained significant ground in local, state, and federal policy arenas. According to Altshuler and Luberoff, the “great mega-project era” was succeeded by 1970 by an “era of transition,” in which “governments (adopted) rules greatly constraining disruptive public investment” (2003, p. 8). They eventually adopted a “do no harm” approach to public investment in which expansive and expensive programs of mitigation for community or environmental harms accompanied new infrastructure projects. Higher costs for environmental and community mitigation, and for materials, labor, and land in built-up areas, led to a substantial decrease in new projects. Nationally, infrastructure investment declined through the 1970s and into the 1980s (Altshuler and Luberoff, 2003).

The two California governors during the period – Ronald Reagan (1966-1975) and Pat Brown’s son Edmund “Jerry” Brown (1975-1983) – were from different parties but shared the view that growth in public spending should be limited. The new “era of limits” is reflected in the lower investment levels in Figure 3, which shows declines in inflation-adjusted state capital outlay expenditures in the three budget areas pertaining to the sectors discussed in this essay, from fiscal year 1965-66 (late in Pat Brown’s tenure) to 1984-85, a low point in state infrastructure spending (Dowall and Whittington, 2003).

**Figure 3**  
**Per Capita State Capital Outlay Expenditures by**  
**Budget Area, Fiscal Years 1965-66 and 1984-85 (2002 \$)**



SOURCE: Governor’s Budget, State of California (de Alth and Rueben, 2005).

<sup>7</sup> Proposition 13 reduced property tax rates to 1 percent of the full value of property and limited assessed value increases to no more than 2 percent annually, except in the case of a change in ownership or new construction.

## *Change Comes to Transportation*

California's highway boom ended soon after it began. New development, measured as lane miles added to the state highway system, reached a peak by the early 1970s, and began declining quickly thereafter (CalTrans, n.d.). Political, economic, and fiscal obstacles arose rapidly to frustrate the state's ambitious goals.

If Los Angeles was the quintessential freeway city, whose aspirations helped prompt the state freeway-building program, then San Francisco was the quintessential city of the "freeway revolt" that soon followed. Bay Area leaders responded to severe postwar congestion problems by establishing the Bay Area Rapid Transit District in 1957, to construct the nation's first large-scale mass transit system for nearly half a century (Scott, 1985; Calthorpe and Fulton, 2000; Whitt, 1983).<sup>8</sup> Since regional leaders wanted transit, they were not disposed to favor the state's highway proposals. Particularly in San Francisco, the density and topography ensured that a system with state design standards would be invasive and controversial (Jones, 1989). Construction of the Embarcadero Freeway in 1956 provoked such opposition that plans were halted for two other freeways that would have torn through residential neighborhoods. "This was not a parochial issue. It was fundamental: Why should city residents be displaced so that the suburbs and downtown should grow?" (Jones, 1989, pp. 301-302).

The year of the Embarcadero Freeway controversy, 1956, was the same year that the U.S. Congress passed the Federal Highway Act. The San Francisco controversy was a harbinger of political tension in many other cities, tension that escalated rapidly because of the program's timing. Before 1956, construction had geared up slowly, with the first freeways built in industrial corridors. But just at the point that revenues for the highway program shot up, and large-scale construction was launched at a rapid pace, California's Division of Highways exhausted the "easy jobs" in its plan, and began transitioning to more invasive projects that cut into residential areas (Jones, 1989).

As air pollution and congestion mounted, and after facing fuel shortages during the 1970s, the public and planners alike began questioning the wisdom of the "highway bias" and promoted mass transit as an alternative (Jones, 1989). "Suddenly," one historian notes, "proponents of environmental amelioration, mass transit improvements, and local control of transportation asserted a voice in transportation politics that was unimaginable only a few years earlier" (Rose, 2003, p. 218).

However, the highway-building era came to an end not just for these political reasons (Jones, 1989; Taylor, 1992). High inflation during the 1970s brought to light a flaw in the way highways were financed, as the program ran into a cost-revenue squeeze. Costs rose rapidly for construction, maintenance, urban right of way, for upscaled design standards and to respond to community and environmental concerns. The combined effect of these factors increased total development costs per mile 3.5 times faster than the inflation rate during the 1960s, and 1.4 times faster during the 1970s (Taylor, 1992).

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<sup>8</sup> Like other regional issues in the Bay Area during the period, proposals for BART were controversial among local governments, whose differences were ultimately resolved only with the help of the legislature and governor.

Meanwhile, real (inflation-adjusted) gasoline tax revenues declined. Unlike many other taxes, the gas tax is not indexed to inflation. After 1963, neither the state nor the federal gas tax rate was increased till 1983, so its real value per gallon eroded. The problem was compounded by mandated gains in vehicle fuel efficiency that reduced the amount of fuel sold. Inflation-adjusted gas tax revenue collected per vehicle mile traveled in California dropped two-thirds in value from 1965 to 1985 (Deakin, 2002).

The 17-mile Century Freeway, running from Norwalk to El Segundo, is a fabled example of the high costs of modern highway projects. Although CalTrans agreed to scale down the project by two lanes and depress it below surface, the freeway required the demolition of over 8,000 homes. In 1979, the state settled with project opponents, agreeing to create thousands of units of affordable housing, job training, and minority contracting programs. All these changes helped triple costs to \$1.6 billion by 1979, with the cost per centerline mile “phenomenally more expensive than prior urban highways” (Altshuler and Luberoff, 2003, p. 244). The freeway was completed in 1993 at a cost of \$2.2 billion, thirty years after planning had begun (Martin, 2001).

Finally, the federal government also ceased to be a generous partner in highway building during this period. Federal highway aid declined by roughly a quarter in real terms from 1968 to 1973 (Altshuler and Luberoff, 2003).

The change in the policymaking environment was ratified at the state level with the replacement in 1973 of the Division of Highways by a new “multi-modal” transportation agency – CalTrans. The new agency’s mandate emphasized flexibility, efficient use and maintenance of existing resources, and greater collaboration with local and regional agencies among its goals (Taylor, 2000). In 1975 the state formally renounced the 1959 freeway plan, adopting instead a new multimodal stance that favored expansion of urban mass transit (Taylor, 1992).

## *Change Comes to Water Policy*

The State Water Project – Pat Brown’s hallmark achievement – “set the stage for a monumental predicament, one that the governor’s son, ironically, would be the first to have to face” (Reisner, 1993, p. 352). The initial facilities completed with funds from the 1960 bond measure could deliver only 2.5 million acre-feet of water<sup>9</sup> during an average year, considerably less than the 4.2 million obligated in contracts issued to cities and rural irrigation districts – the price for obtaining agreement for the original proposal. If legislators or voters failed to provide the additional funds needed to complete the project, the state could be exposed to crippling lawsuits.

By the time that Jerry Brown became governor in 1974, the Department of Water Resources was predicting looming shortages (Reisner, 1993). Jerry Brown attempted to complete his father’s project, but found that the context for water policy had changed in ways that made it far more difficult to complete the project than it had been to launch it – similar to the situation facing highway planners.

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<sup>9</sup> An acre-foot provides about enough water to sustain the needs of two households for one year.

State engineers developed a series of proposals, all with high price tags. The cost to deliver the State Water Project's last 1.7 million acre-feet was projected to be two to five times more than the cost to deliver the first 2.5 million (Reisner, 1993). Again, higher costs were partly associated with a more built-up environment. By the 1970s, the "easy jobs" in dam building, as for highway expansion, had already been completed, and new potential projects penciled out as much less cost-effective (Reisner, 1993). And just as in the case of highways, the rapid development of elaborate new facilities had provoked a public reaction about negative consequences for affected communities. In the case of water policy, such concern focused not only on water quality for human consumption, but also degradation of natural habitat for other species. By the 1970s, the state's water development projects had produced the worst disruption of salmon habitat anywhere, for example (Reisner, 1993). Thus, higher costs were also associated with mitigation of negative environmental impacts.

Governor Jerry Brown faced an "insoluble" dilemma in trying to please both the water lobby and also the new environmentalist lobby (Reisner, 1993). To be environmentally sound, his water project could include no on-stream storage – dams or reservoirs on significant wild rivers or streams. This would place the state's remaining wild rivers off-limits. The centerpiece of Brown's proposal was a Peripheral Canal, a conveyance channel around the deteriorating San Francisco Bay Delta that water interests had sought for decades. The canal became the focus of intense controversy, since environmentalists feared it would divert too much water from the Bay Delta.

Brown offered a concession to environmentalists; a proposed constitutional amendment would ensure state responsibility for the delta's water quality and keep North Coast rivers wild and scenic forever. However, rather than mollifying opponents, this tactic had the opposite effect. An unlikely alliance emerged among interest groups deeply polarized by the proposal; growers who disliked the plan's environmental measures teamed up with environmentalists opposed to the canal, to work to defeat the plan. The consensus that Jerry Brown's father had forged years earlier had unraveled.

The Peripheral Canal proposal was trounced in a public referendum held in 1982, gaining less than 40 percent of the vote statewide (Hundley, 2001). Canal opponents successfully tapped into the same voter resentment that had fueled the Proposition 13 taxpayer revolt by highlighting the cost issue. The measure's defeat, the first for a major water project since the 1920s (Hundley, 2001), marked an end to the supply-side approach that reached its zenith in the State Water Plan. It marked the beginning of a contentious era of new water conflicts in the state.

### *Change Comes to Higher Education*

No such public outcry arose against college building in the transitional period. However, by the mid-1970s, funding constraints and declining demand also created a turning point in higher education facilities building. Enrollment targets in the state's Master Plan for Higher Education had guided construction into the 1960s. From 1945 to 1965, eleven CSU and five UC campuses were established (Douglass, 2002). The boom extended to the mid-1970s for CCCs; from 1945 to 1975, sixty-one CCC campuses were established. In addition to enrollment

targets, other assumptions guiding campus construction included a belief in limiting campus size and in dispersing them geographically to enhance regional economic development.

Federal funds, which had provided 10 to 15 percent of capital funding for UC and CSU under the 1963 Higher Education Facilities Act, peaked in 1968. State and local funding for both operating and capital budgets, as a percentage of personal income, peaked around 1974 (Douglass, 2002). Thereafter, growing anti-tax sentiment among voters, combined with relatively flat enrollment rates till the late 1980s, helped usher in a period of lower investment and scaled-down expansion. More than eight times as many new campuses were established from 1945 to 1975 as from 1975 to 2000.

Critiques of the Master Plan also arose. “Even its staunchest defenders are forced to concede that the plan was no more than a compromise between the segments back in 1960” (Disler, 1971). Some observers advocated more centralized control and regional integration among segments. However, others feared that regional governing boards would resume the earlier pattern of regional competition for campuses, and that a unified state board for all three segments would make the higher education system overly bureaucratic. These debates, although often heated, produced only incremental reforms.<sup>10</sup>

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<sup>10</sup> Assembly Bill 73 of 1970 attempted to strengthen the independence of the Coordinating Council for Higher Education, established to oversee the segments, which was widely viewed as meek. The bill reduced segments’ representation on CCHE from 12 to 4, while leaving 18 gubernatorial appointments (Disler, 1971, p. 28). The CCHE was reconstituted as the California Postsecondary Education Commission in 1973 (Center for Studies in Higher Education, 2002).

# Beyond Bricks and Mortar: An Era of New Thinking About Public Investment

The 1980s were a parallel to the years after World War II – a time during which growth pressures built to a critical stage. By the 1990s, policymakers faced a daunting set of challenges similar to those that Pat Brown faced: strain on existing facilities resulting from rapid population growth, pressure to enhance educational opportunities in response to economic restructuring, and planning and governance challenges posed by new patterns of urban development. Just as during the Brown era, new policy approaches are now required to meet the challenges.

This chapter begins with an overview of the mounting growth pressures of the past two decades, then traces the particular stresses faced in each sector and the governance responses that have emerged in recent years.

## Growth Pressures Build Again

California added more than ten million new residents during the 1980s and 1990s, a population gain of 43 percent (U.S. Census). Growth spilled to inland areas, but coastal areas also underwent rapid change. Meanwhile, state and local spending for capital outlay (for building new facilities and rehabilitating old ones) in California remained well below the peak spending levels of the late 1960s for both the transportation and higher education sectors, as indicated in Table 1.<sup>11</sup>

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<sup>11</sup> The inter-temporal comparison is problematic for the water sector, as data for early years are incomplete (de Alth and Rueben, 2005). These data indicate that per capita state and local spending for higher education facilities dropped from its peak in 1967 to 55% of that level by 1982, and has not exceeded 79% of the peak in the years since. Combined state, federal, and local spending on highways and roads in California also peaked in 1967, then declined to a low of 28% of that level in 1982, and remained below half the peak level until 2002. Even when mass transit, highway, and road spending are combined, total transportation spending did not regain even half the peak level for highways and roads alone until 1992. A sharp increase in transportation spending between 1997 and 2002 (44%) brought total spending to only 85% of the peak 1967 level for highways and roads alone. It is important to note that these comparisons are for capital outlay only; non-capital outlay spending (for such functions as operations and maintenance) in these categories generally rose steadily since the postwar era. When capital and non-capital outlay spending are combined, total spending in higher education increased steadily since 1957. For highways, roads, and mass transit, total spending remained below peak postwar levels (for highways and roads alone) during the 1970s and 1980s but exceeded those levels by the 1990s (see de Alth and Rueben, 2005).

**Table 1**  
**Per Capita State and Local Capital Outlay Expenditures (2002 \$)**

	1957	1962	1967	1972	1977	1982	1987	1992	1997	2002
Highways	163.5	196.2	227.4	182.8	65.6	64.5	82.4	108.4	90.2	153.7
Transit	na	na	na	19.2	5.7	15.2	20.8	42.6	43.3	38.4
Water	30.4	55.6	47.5	43.7	31.5	30.6	56.8	75.6	78.1	72.1
Higher Education	22.1	42.7	50.7	30.6	37.6	28.1	39.8	36.8	39.1	35.0
Total	216.1	294.6	325.6	276.4	140.4	138.4	199.9	263.4	250.7	299.2

SOURCE: Census of Governments, California Controller's Office (from de Alth and Rueben, 2005).

The combination of rapid population growth and lower investment led to strain on existing facilities – a strong parallel with the postwar period. By the late 1980s and early 1990s, each sector studied in this report faced difficulties in delivering services, as described in the sections that follow. However, it was not population pressure alone that produced current dilemmas. In another strong parallel to the postwar period, changing patterns of urban development raised planning challenges that traditional governance arrangements were ill-suited to address.

Development patterns grew more complex in recent decades especially because of employment decentralization. The rate of job growth during the 1980s and 1990s was higher than population growth. As employment moved to outlying areas, new “edge cities” – characterized by office parks, shopping centers, low density housing, and automobile reliance – grew up. One study determined that in 1999, the majority of office space in the San Francisco and Los Angeles metropolitan areas was located in “edge city” or “edgeless” locations (Lang, 2000).<sup>12</sup>

Suburb-to-suburb commuting patterns intensified, sometimes on routes not designed for such purposes. Job decentralization contributed to a dramatic rise in car use, exceeding population and job growth rates in spite of efforts to encourage mass transit use as an

<sup>12</sup> The term “edge city” was used to define clusters of at least five million square feet of office space, not in primary (central city) or secondary (major suburban city) locations. The term “edgeless city” was used to refer to dispersed clusters featuring less than five million square feet of office space. Another study (Glaeser, Kahn, and Chu, 2001) characterized the geographic distribution of employment in six of the eleven largest metropolitan areas in California in the mid-1990s as decentralized or extremely decentralized, with less than one-quarter of all jobs located within three miles of the central city business district, and less than half located within ten miles (the six were Oakland, San Diego, Oxnard, Los Angeles, Riverside/San Bernardino, and Fairfield/Vallejo/Napa). Two metro areas (San Francisco and Fresno) were characterized as dense and compact, with at least one-quarter of employment within a three-mile ring and at least 60 percent within a ten-mile ring. Three others (Sacramento, Anaheim, and San Jose) were termed centralized, with less than one-quarter of employment within the three-mile ring, but more than 60 percent within ten miles.

alternative. The growing complexity of urban development patterns made it harder for state transportation planners to impose “one-size-fits-all” engineering solutions in a top-down fashion, and prompted efforts to reintegrate planning for land use and transportation in metropolitan areas.

Educational institutions also faced pressure as enrollments began climbing by the late 1980s (Hanak and Barbour, 2005). In another parallel with postwar developments, education became a major policy concern because of underlying issues related to economic restructuring. The labor market has changed in recent decades with the rise of a knowledge-based economy, global competition, and decline of manufacturing jobs. As higher education has become an increasingly important determinant for securing well-paid employment, income inequality among workers also has widened (Reed, 1999).

The basic character of these challenges is reminiscent of the postwar era, but the state also has changed dramatically since then. Many of the changes make it harder to aggressively pursue new public investments.

The policymaking environment has grown more complex. Governance itself is complicated by the multiple state, local, and regional agencies – often organized on a single-function basis – that have been established to meet infrastructure needs since the postwar era. At the state level in 1960, there were 22 state departments; now there are 11 agencies, 79 departments, and over 300 boards and commissions (Neumann and Whittington, 2000; California Performance Review Commission, 2004). At the local level, an indication of governance complexity is the number of special districts – single-purpose governing units that provide services such as water, sewers, utilities, and public transit. Special districts rose especially rapidly in number during the postwar period, as California used them more often and for a wider variety of services than other states (Eigerman, 1998; U.S. Census Bureau, 2002). By 2002 there were more than 2800.

Many more private and non-profit interest groups also seek a seat at the table today when the state makes development decisions – groups that range from environmentalists to neighborhood organizations to labor and business leaders. Policymaking is more contested, as activists have made increasing use of tools such as local and state ballot initiatives and litigation to press for various causes.

Governments today also face higher costs and tighter fiscal and environmental constraints than in the past. Costs have risen substantially for land, materials and labor, and for environmental and community mitigation. For example, the average ratio of annual inflation-adjusted capital outlay expenditures to each new road mile added in the U.S. was more than three times higher during the 1990s than during the early 1960s (Hanak and Barbour, 2005).

Californians’ commitment to environmental protection remains strong (Baldassare, 2004b). As development has extended outward, environmental and economic goals have come into sharp conflict in some parts of the state, for example where new development impinges on precious remaining natural habitat on the urban fringe, and as regional planners struggle to meet state and federal air quality mandates in spite of rapidly rising car use (Barbour, 2002). As remaining sources of water pollution also increasingly have been traced to farmers, urban

dwellers, and local land use practices, the nexus between transportation, land use, and the environment has grown more problematic.

Fiscal constraint also has increased conflict among local governments and between the state and local governments. As revenues were squeezed after the passage of Proposition 13, local governments pursued policies to maximize fiscal returns, including skewing land use policies to favor certain development such as retail sales.<sup>13</sup> In an atmosphere of competition and constraint, regional policy coordination is difficult, although many local policies have effects beyond local borders. Tension between the state and local governments increased after fiscal year 1992–93, when the state government, facing the worst economic downturn since the Great Depression, began transferring some \$3.6 billion annually in property taxes from cities and counties to school districts, or about one-fifth of city and county revenues from this source (Silva and Barbour, 1999). Although this shift enabled the state to meet its obligations to schools, it outraged local government officials.

Attitudes about growth and government have changed since the postwar era. Californians are more likely to feel pessimistic about growth and also about government's ability to address their needs effectively (Baldassare 2000, 2002, 2004a; Baldassare and Cohen, 2005). To limit governmental spending and discretion, voters made increasing use of state and local ballot initiatives during the 1980s and 1990s. Examples include successful efforts to mandate certain levels of education spending, to subject local tax increases to a supermajority vote, and to limit the number of terms state legislators may serve. Other initiatives sought to reduce services to certain individuals and groups, including ending affirmative action in state college and university admissions, and restricting services provided to undocumented residents and their children.

At the local level, growth-related problems prompted a voter reaction by the late 1980s termed a "growth-control revolution." Hundreds of local growth management ballot-box measures were passed across the state.<sup>14</sup> In response, state legislators also deliberated substantial reforms calling for new comprehensive state and regional growth policies (Landis, 1992; Trombley, 1992; *California Planning and Development Report*, 1992; Innes et al., 1994). However, momentum was undercut by 1993, when the state entered a severe recession.<sup>15</sup>

What accounts for the breakdown of the postwar pro-growth consensus, even as existing facilities became increasingly strained? Some observers argue pessimistically that these developments may be related to demographic changes since the postwar era. The population has grown far more diverse in its racial/ethnic composition. For example, in 1970, non-

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<sup>13</sup> According to this argument, voter initiatives to limit local revenue – Proposition 13 in particular – led to greater "fiscalization" of land use, as cities and some counties used zoning and other policy levers to favor development that maximized revenue. With property tax constrained, retail development is highly favored by municipal governments, while other land uses, particularly multiunit housing, are disfavored (see Lewis and Barbour, 1999).

<sup>14</sup> Not all measures were initiatives written by citizen groups. Many were placed on the ballot by city councils and county boards of supervisors.

<sup>15</sup> As noted above, the recession prompted a souring of state-local relations that hampered growth management policymaking, when the state government began transferring some \$3.6 billion annually in property taxes from cities and counties to school districts.

Hispanic whites constituted 77% of the state's population, but by 2000, they were 47%, and they are projected to form about 32% to 35% by 2025 (California Department of Finance, 1999, 2004). Accompanying these demographic shifts, a greater disparity emerged in recent decades between the electorate and the population that uses social services. Twenty-five years ago parents with children in school made up 42 percent of the electorate; by 1998, the share was only 21 percent. In 1998, 78 percent of the electorate was white, yet only 46 percent of parents with children under age 18 were white (Schrag, 1998, p. 125).

In the pessimistic view, young families (many newly arrived) are still driving much of the population pressure creating need for new public investment, especially for schools – just as during the Brown era. However, unlike the Brown era, the electorate voting on whether to increase services now consists disproportionately of a less diverse group of older, native-born, non-Hispanic white Californians with fewer children. In this view, established residents and communities in California that benefited from investments of the past may be less willing to provide for future generations.

Although this argument might help explain some voters' attitudes about certain types of spending – on schools, for example – it seems less convincing in relation to sectors such as transportation and water supply in which facilities often cross multiple local jurisdictions and serve the population quite broadly. In fact, by the late 1990s and early 2000s, as concerns about infrastructure needs mounted, voters showed a willingness to increase infrastructure spending, passing a series of state and local ballot measures, including bond measures, that substantially increased spending for school facilities (K-12 as well as community colleges), as well as water quality and supply projects, parks and open space, and transportation (see de Alth and Rueben, 2005).

Opinion polling suggests that Californians of all political stripes, ages, and racial/ethnic backgrounds tend to feel pessimistic about growth and governments' ability to plan for the future (Baldassare, 2005). Thus, although a growing divide between "haves" and "have-nots" in California is troubling, it is probably inadequate as an explanation of voter skepticism about growth and development. Rather, it appears that most Californians have grown more cognizant of the costs as well as the benefits of growth and growth policies. From this vantage point, voter-imposed constraints may reflect less a desire to protect narrow advantage than to regain a lost sense of control over the shape of future growth and perhaps slow down the pace of unwanted change. Voters' demonstrated willingness to fund public investment when state and local ballot measures carefully target spending for specific purposes seems to support this view.

Similarly, some research on local growth management ballot activity suggests that something beyond narrowly defined self-interest is motivating voters. Lewis and Neiman (2002) found that local conditions "on the ground," such as long commute times or an excess of housing to local jobs, account better for differences among communities in citizen opposition to residential growth than do the cities' relative socioeconomic status. Glickfeld and Levine's 1992 study of local growth-control measures during the 1980s and early 1990s found that although no simple relationship could be demonstrated between the number of growth-control measures enacted at the local level and actual growth rates at that level, a very strong relationship existed between the number of measures enacted locally and state-level measures of growth. Thus,

local growth measures might constitute an effort by voters — albeit an uncoordinated one — to influence wider growth trends.

Whatever the underlying motives of voters, state leaders face substantial challenges in convincing them that more investments are needed to accommodate growth and development, and that quality of life will not be jeopardized in the process. In particular, public leaders have failed so far in articulating a vision of future growth and development for California that is inspiring to voters, either in terms of confidence in the future of the state or in their leaders themselves.

## **A New Governance Framework Emerges**

In a tightening vise of higher costs, growing demand for services, and fiscal and environmental constraints, administrators in specific policy domains considered new strategies by the 1990s. The great state plans of the Brown era, and the governing institutions that implemented them, were revisited or revised, no longer considered as suitable for contemporary needs. In particular, the top-down, single-function, engineering-driven approach to planning that was a hallmark of the Brown era is now increasingly viewed as ineffective.

It is ironic that institutional arrangements of the Brown era seem inefficient today; they were introduced, in their time, to increase efficiency. They suited the needs of their time — building large-scale physical infrastructure systems at a state scale. By consolidating authority at the state and federal levels (or in the case of higher education, within the segments), new single-purpose bureaucracies reduced transaction costs of governing, for example, by reducing persistent conflict among regions for college campuses, among the higher education segments over areas of authority, and among local governments and regions over transportation, environmental, and water supply concerns. By rationalizing investment planning, these bureaucracies gained efficiencies through such techniques as uniform design standards for highways and space utilization standards for higher education facilities expansion.

Those institutions are less suitable today, however. As costs and consequences of state policies in different functional areas became more apparent, so did the need to consider trade-offs among policy goals that sometimes conflicted. Now the challenge is to use resources as efficiently as possible, and governance arrangements are needed that help resolve conflicts among environmental, economic, and equity goals in a strategic and coordinated way. That requires breaking down many institutional barriers erected during the Brown era. In terms of changing traditional arrangements, it means, in particular, reintegrating growth management policies (for land use, infrastructure, and the environment) at a scale matching the one at which many natural and social systems operate — the bioregional and metropolitan scales. Ideally, such integration permits more strategic consideration of costs and benefits of policy goals and objectives. The unintended consequences of policies made in one functional area or political jurisdiction that spill over to others may be addressed more deliberately, and where possible, conflicts among policy goals may be overcome, or at least balanced more carefully.

## Transportation Policymaking Under Stress

By the 1980s, transportation planners were feeling stymied, as traditional approaches to accommodating travel demand also were coming under fire. Since the 1970s, many policymakers and activists had favored rail transit as an alternative to highway expansion, seeking to enhance social equity and environmental quality and provide congestion relief. These goals reflect the changing values that ended the highway-building boom. According to Census of Governments data, per capita state and local capital outlays on transit in California, adjusted for inflation and including federal funds, more than doubled from 1972 to 1992 (de Alth and Rueben, 2005).

New transit spending did not turn the tide of increasing car use in California, however. Public transit lost ground to automobile use for commutes in most metropolitan areas in the state in the 1980s, and this trend reversed only slightly the following decade (U. S. Census). By contrast, vehicle miles traveled rose dramatically, almost two-and-a-half times faster than population in the state from 1970 to 2000 (CalTrans, 2003; California Department of Finance, n.d.). Factors accounting for increased car use in addition to outward, polycentric expansion include a rise in female employment outside the home and low gas prices (including taxes) (Bernick and Cervero, 1997). As investment in new highway capacity remained low by the standards of the mega-project era, motorists initially used excess capacity built into many highway segments, but gradually congestion worsened (Altshuler and Luberoff, 2003; Remen, 2004).

However, planners were not convinced that building new highway capacity would solve congestion problems. Research suggested that as long as drivers desire more mobility than can be accommodated by an existing roadway system, increases in capacity may be quickly consumed as travelers shift from alternate modes or routes, and as land development responds to new road supply (Hansen and Huang, 1997; Cervero, 2003). In this context, it may become difficult to build one's way out of rising congestion. Partly for this reason, new freeway construction essentially has been halted in California.

Thus, by the late 1980s, transportation policy seemed to have lost its bearings. Although rising congestion provoked a public outcry for relief, both roadway and transit expansion had been called into question. Many of California's metropolitan areas were in violation of clean air standards, with automobile emissions a major cause of the problem. Facing revenue and environmental constraints, planners searched for ways to encourage more efficient use of existing systems – ways to manage the demand for transportation, rather than increase supply. Many observers argued that an underlying problem was a long-term pattern of public subsidy for private automobile use. They called for dramatic increases in user fees (such as gas taxes), parking charges or other means of capturing the full social costs of automobile use (Wachs, 2003b; Bernick and Cervero, 1997). However, such policies have met with resistance from voters and legislators.

Others called attention to the connection between land use and transportation behavior as another policy lever. For example, studies demonstrated that higher land use densities near transit stations are associated with higher rates of transit use, suggesting that land use might be reoriented to help meet regional transportation objectives. However, others countered

that even substantial increases in density near rail stations would change travel patterns only marginally – at least over the short term – in auto-oriented metropolitan areas (Wachs, 1993).<sup>16</sup>

## A New Transportation Framework Emerges

In this context of policy confusion and fiscal constraint, transportation governance was radically altered, as the postwar governance system proved increasingly unable to deliver on its promises. The federal and state governments pushed funding and programming authority downward to regional and local agencies in the 1990s. They also called for more integrated planning for land use, transportation, and the environment, so as to use resources more efficiently. One observer notes that, “In the 1970s and 1980s, CalTrans stressed the need for cooperation and intergovernmental partnerships but many local critics argued... [this] had very little substance. [During the 1990s], however, the rhetoric became reality” (Taylor, 2000, p. 39). The transportation reforms of the 1990s are perhaps the most far-reaching studied in this report to restructure governance to better address current investment challenges. However, many obstacles still hinder the reforms from achieving their goals.

Through a series of new programs, the state and federal governments vested authority for transportation capital outlay planning in regional and county agencies. The state legislature passed the Transportation Blueprint for the 21st Century in 1989 (endorsed by state voters in 1990), doubling the state gas tax and authorizing bond funding for transit. In the state’s 32 urbanized counties, countywide transportation agencies were designated to oversee a program to reduce congestion and improve integrated planning for land use, transportation, and air quality. However, given significant latitude in meeting requirements and with no actual power over local land use, the county agencies often found it difficult to impose strict standards. In practice, they often emphasized road and highway improvements (Nash, 1992; Wilshusen, 1992; Rothblatt and Colman, 1995; Chen, 1996; Innes and Gruber, 2001).

In 1991, the federal government adopted a similar approach, except that it attempted to empower regional rather than county agencies. The federal Intermodal Surface Transportation Efficiency Act (ISTEA) and its sequel TEA-21, passed in 1998, required that metropolitan planning agencies take the lead in long- and short-term transportation planning. In most of the state’s major metropolitan areas, the designated agencies are Councils of Government (COGs), voluntary organizations of local governments that tend to operate on a one-government, one-vote basis.<sup>17</sup> These agencies prepare 20-year regional transportation investment plans (RTPs) and update them every three years in a rolling fashion. Only a small portion of funds in each

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<sup>16</sup> For extensive reviews of literature on the relationship of land use and transportation behavior, see Parsons Brinkerhoff Quade and Douglas, Inc. (1996); Ewing and Cervero (2001); Crane et al. (2002).

<sup>17</sup> See Barbour (2002) for more on the governing structures, jurisdictions, and responsibilities of regional planning agencies in the state. State legislation somewhat undermined the federal goal of empowering regional agencies. In three regions, authority was partially redirected toward the county level instead. A few studies that assessed the implementation of ISTEA in the Los Angeles and San Francisco Bay regions concluded that the degree of influence given to county-level agencies by the state’s implementing legislation tended to hinder a regional decision-making process (Lewis and Sprague, 1997; Innes and Gruber, 2001).

RTP is actually discretionary, as most are designated for long-term projects outlined in previous plans.

ISTEA promoted greater flexibility and policy breadth in long-range regional transportation plans. These plans were required to conform to various potentially conflicting policy goals including mobility, accessibility, congestion management, energy conservation, efficient use and maintenance of existing systems, and regional air quality mandates. Amendments to the federal Clean Air Act in 1990 were crucial in strengthening the transportation-environment planning link, by requiring plan conformity and threatening the withholding of federal transportation funds for areas out of attainment. RTPs also were required to be “fiscally constrained” – in other words to rely on secured funding sources only -- forcing regional agencies to define choices that could then be tested for environmental impacts. ISTEA also promoted flexibility-- about half of all federal funds could be used across program categories – and system performance measurement, or the identification and application of performance criteria for selecting projects across different modes (Lewis and Sprague, 1997; California Legislative Analyst’s Office, 1998b; Innes and Gruber, 2001).

Senate Bill 45, passed in 1997, completed the state’s devolution of authority. In a continuation of a long-term pattern in California transportation policy, the program focused authority more at the county level, in contrast to federal reforms like ISTEA that have strengthened the authority of regional agencies. Numerous funding categories were combined into more flexible block grants. Regional transportation planning agencies were given responsibility for programming state and federal funds designated for transportation capital improvements in metropolitan areas – 75% of capital improvement funds in the state. CalTrans is responsible for programming the remaining 25% for projects of inter-regional significance. However, SB 45 also ensured that funds are allocated based on county shares (by population and lane miles), which undermined the regional planning role somewhat in multicounty areas (Innes and Gruber, 2001).

County-level authority also was enhanced by optional “self-help” county sales tax measures. As federal and state funding declined, new local revenue sources were sought. Starting in the 1980s, the state gave counties authority to adopt half-cent sales tax increases to fund packages of transportation programs, contingent upon voter approval. Measures have been passed in twenty counties, which together account for more than four-fifths of the state population. Today this source accounts for one-third of local funding for transportation in the state (California Legislative Analyst’s Office, 2000b; Goldman, et al., 2001).

The measures, ranging in duration from 10 to 20 years, generally outline specific packages of transportation improvements, and have tended to emphasize highway, street, and road improvements (Goldman et al., 2001). However, the same virtue that makes them politically attractive to voters – spelling out a list of specific improvements – makes this mechanism inflexible and in some ways, less accountable. County authorities established to administer the funds focus on project management rather than participation in deliberative, future-oriented regional planning processes (Crabbe et al., 2002). Since the measures provide gap financing for many projects, they have skewed federal and state funds more in the direction of their priorities.

Thus, transportation decision-making was devolved to regions and counties (actually a confusing combination of the two) during the 1990s. This devolution has radically altered the postwar planning system, such that it now more closely resembles the prewar framework, when major transportation decisions were made within regions.

The new system has a number of advantages. For example, decision-making is more flexible, no longer driven by single-function, uniform design engineering plans and funding streams. In response, California regional agencies have pursued innovative techniques combining supply with demand-side strategies, as well as transit with highway strategies -- a far cry from the single-vision supply-side approach of the past. For example, Southern California agencies have sought to combine high occupancy vehicle (HOV) highway lane designation with Bus Rapid Transit service, a cheaper alternative to rail (California Legislative Analyst's Office, 2000a). In turn, complementary carpooling programs have increased HOV lane efficiency. To further enhance efficiency, a form of "congestion pricing" has even been implemented, in which solo drivers gain access to restricted lanes by paying an electronic toll that varies based on the degree of congestion in the cost-free lanes (Hanak and Barbour, 2005). Such hybrid strategies provide hope for overcoming seemingly intractable debates about highways versus transit, and supply-side versus demand-side policies.

In addition, the new governance framework aims to help foster strategic planning and management. As one national study noted, "Effective strategic management practices are of critical importance to state departments of transportation (DOTs) precisely because they have been operating in an era of unprecedented change over the past decade ...[but although] DOTs have the capability of developing viable strategic plans, the real challenge facing them [is] strategic management, implementing strategic plans and using them effectively to drive other management and decision-making processes" (Poister, 2004, pp. 1).

In California, regional agencies and CalTrans have made some progress in developing system performance measures. Regional agencies now systematically examine alternatives in relation to cost-benefit, mobility, environmental, equity, and other measures and objectives (Hanak and Barbour, 2005). Performance testing is a practical response to the imperative to weigh costs and benefits of policies to meet multiple, sometimes conflicting goals.

Implementing effective ongoing operational measures is technically challenging. Just as challenging is integrating performance measures into performance management. This will require using measures to help guide decision-making -- for example by converting measures of performance to mandated standards for performance. This process requires normative trade-offs, such as, for example, considering how much congestion and density is tolerable, or how to trade off transportation access for the carless with running a cost-effective mass transit system. Thus, performance management remains difficult and divisive, and especially at the state level, full implementation remains years away.

In addition to promoting more strategic and flexible decision-making, the new governance framework aims to foster better integration of transportation planning with other policy areas. Devolution of transportation authority to a regional framework is appropriate for coordinating land use, transportation, and environmental planning, since they are inextricably linked, and their consequences often play out at the regional scale. "Smart growth" strategies

being pursued by regional agencies across the state are geared toward this objective.<sup>18</sup> In all the state's major metropolitan areas, agencies are using performance modeling to test potential effects not just of alternative transportation program scenarios, but also land use scenarios. In addition, in the San Diego, San Francisco Bay, and Los Angeles areas, smart growth land use scenarios were adopted as the basis of recent long-range transportation plans. In effect, this commits the local governments that ratify the plans to alter land use practices to promote denser development. Some transportation funds also have been provided to encourage implementation.<sup>19</sup>

However, the obstacles to success in the new system are also formidable. The system provides a regional framework for decisions across multiple policy areas. But certain structural incentives make full realization of that objective unlikely.

County and regional transportation agencies are essentially confederations of local governments, the state department of transportation, and local transit providers. Although federal and state laws may mandate regional plans, the governmental agencies that compile and adopt them are not accountable at a regional scale to voters or to many specific performance mandates. Especially when facing fiscal constraint, local governments may find it hard to set aside parochial self-interest in favor of the "regional good." For example, they may prioritize local road repairs over programs providing more dispersed regional benefits – such as ramp metering on congested freeways.

This parochial tendency is reinforced by the system of transportation funding, which also emphasizes "geographic" (or "jurisdictional") equity (Innes and Gruber, 2001). Federal and state capital outlay funds are distributed to local and regional agencies according to formulas based on population and roadway miles, and also to promote certain program objectives, such as for roads or transit. The process often entails a basic lack of correspondence between the level of government raising the revenue, the level benefiting from it and allocating the funds, and the geographic scale at which many transportation networks operate. For example, each county agency has an incentive to apply for and expend its full allocation of state funds on county-level priorities, in spite of any regional rationale to the contrary, and in spite of the fact that many road and transit routes connect multicounty areas (Garrett and Taylor, 1999).

One result of this process has been the expansion during recent decades of suburban transit service, even while inner-city transit systems (which disproportionately serve the poor)

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<sup>18</sup> Smart growth is a term for integrated land use, transportation, and environmental planning that seeks to maximize economic, environmental, and equity objectives simultaneously. For example, higher-density, infill, transit-oriented development may provide more affordable housing options, while at the same time providing benefits for air quality and preservation of open space on the urban fringe.

<sup>19</sup> In the San Diego area, the recently adopted Regional Comprehensive Plan commits \$25 million in transportation funds over five years for localities that adopt supportive land-use policies. The half-cent sales tax for transportation passed in November 2004 includes \$250 million over 40 years for local infrastructure improvements integrating land use and transportation objectives, and \$850 million for environmental mitigation including acquiring and maintaining regional natural habitat preserves. The Sacramento area regional transportation plan commits \$500 million over 23 years for smart growth community grants, while in the San Francisco Bay Area, the regional transportation agency targets \$27 million annually for projects integrating transportation and land use or encouraging high-density housing near transit.

have become strapped for funds. If transit funds were geared to promote regional efficiency, they might be targeted to congested commuter corridors and dense, central areas where ridership is high. Instead, with funds distributed by formulas based on track or vehicle mileage, or population, rather than ridership, suburban systems (rail and bus) tend to receive much deeper subsidies per transit rider than central city systems (Taylor, 1991; Wachs, 1997; Garrett and Taylor, 1999).

The California Transportation Commission voiced some of these concerns about parochial decision-making in a recent critique of SB 45, arguing that it “has not lived up to its original promise.... Many regional agencies have come to regard the STIP regional program as a local program, driven by parochial interests, much like the direct local subventions of gasoline taxes to cities and counties” (California Transportation Commission, 2002, pp. 45-46).<sup>20</sup>

Local self-interest may be especially prevalent in relation to land use. Policies with potential regional benefits – such as denser, affordable, transit-oriented housing – may entail high local costs in the form of higher service demands or community opposition. Smart growth programs must overcome conflicting signals sent to local governments from the state, for example environmental review requirements focused at the project level that tend to deter infill development, and fiscal constraint and uncertainty that renders it difficult to provide infrastructure to support infill. State-led reforms may be required to overcome such institutional and fiscal barriers to regional policymaking.<sup>21</sup>

The limited impact of smart growth programs helps attest to these governance disincentives. An example is the San Diego Association of Government’s decade-long effort to implement smart growth, which in spite of its limitations is perhaps the most ambitious in the state. In 1993, SANDAG’s member local governments ratified a Regional Growth Management Strategy with “smart growth” objectives, but by 2000, current land use plans and policies in the region were characterized as still generally inconsistent with the plan because of the low density of planned development (San Diego Association of Governments, 1998, 1999, 2000).

In a new approach adopted in 2004, the Regional Comprehensive Plan (RCP) establishes a framework for integrating land use, transportation, and public investment. Transportation needs, especially for transit expansion, are placed in the role of “driver” for more integrated infrastructure and land use planning across various sectors. Smart growth opportunity areas are identified where resources will be directed for infrastructure improvements and compact,

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<sup>20</sup> The STIP is the State Transportation Improvement Program, the rubric under which short-term (5-year) transportation capital investment plans are devised for approval by the California Transportation Commission. STIP plans are based on estimates of available revenues during the time frame and designate projects for funding that have been identified in long-range state and regional investment plans. With the passage of SB45, regional transportation planning agencies (RTPAs) were given responsibility for programming 75 percent of state and federal capital improvement funds, and CalTrans was made responsible for programming the remaining 25 percent for projects of inter-regional significance.

<sup>21</sup> This sentiment is reflected in a comment by a participant in a Regional Infrastructure Dialogue held by the California Center for Regional Leadership in Orange County on March 25, 2004. “The state is the barrier with their mandates and totally conflicting policies. The cities are pushed in so many directions that it has become this morass.”

infill development to support transit objectives. A key to the new approach is that the RCP relies not just on voluntary compliance by SANDAG's member local governments. Instead, transportation funding provides a new lever for implementation, with \$11.25 million allocated on an annual basis from the RTP and the county's half-cent transportation sales tax for incentives to local governments to promote land use changes. The RCP takes a more realistic approach than previous plans by relying on greater input from local governments regarding feasible land use policy changes (in identifying smart growth zones) and providing competitive funding to encourage implementation. However, "encourage" is a key term – the RCP remains a voluntarist strategy for regional infrastructure coordination.

The state's system of transportation finance has been critiqued not just in relation to how funds are allocated, but also how revenue is raised, and this issue has implications for governance. The traditional approach to transportation finance was through user fees – specifically gas taxes. However, since 1963 the state gas tax has been raised only twice, and today California fuel tax revenue per vehicle mile is worth about one-third of its 1970 value (California Department of Transportation, 2003). Revenue from county sales tax ballot measures has increasingly filled the breach, and analysts have raised a number of concerns about this shift. While the ballot measures do align the level of government raising and spending revenue, this was not geared to promote regional efficiency or equity. To gain voter approval, the measures tend to favor "glitzy" – but often less cost-effective – projects. Since the passage of Proposition 218 in 1996, renewal now requires a two-thirds vote, making the future of this funding source insecure. Unpredictable revenue sources are anathema for transportation planners who must make long-term commitments in the context of stiff requirements such as for air quality compliance (Taylor, Weinstein, and Wachs, 2001; Wachs, 2003a).

A revenue system based on growth-indexed user fees would have several advantages, in contrast (California Legislative Analyst's Office, 2004c). Such a revenue system would provide more predictable revenue with long-term growth potential. In addition, transportation economists widely agree that higher user fees would encourage efficiency by assessing drivers more of the full social costs of their vehicle use (Taylor, Weinstein, and Wachs, 2001; Wachs, 2003b). While this reform would not, in and of itself, ensure more coordinated governance, it would help align fiscal incentives to support, rather than hinder, governance reforms promoting efficiency and stable long-term planning.

Another innovative approach to transportation finance and management that dovetails with collaborative governance is public-private partnerships. CalTrans entered into four demonstration projects in the 1990s for toll roads in Southern California to be constructed, financed, and managed by the private sector (Hanak and Barbour, 2005). Another flagship project, the Alameda Corridor, is a 20-mile rail cargo expressway linking the Long Beach ports and the City of Los Angeles. The Corridor is financed through user fees from the railroads that benefit from the enhanced mobility it provides. The San Francisco Bay Area has pursued its own approach to public-private partnership through support for transit-oriented development (TOD). With 25 TOD projects completed or underway near transit stops, the Bay Area is recognized as the nation's TOD leader (Cervero et al., 2004). As demographic trends are projected to drive increasing demand for more compact housing in transit zones in coming

decades, public leadership will be needed to support adequate infrastructure to allow the market to deliver this type of development (Center for Transit Oriented Development, 2004).

Thus, the state's transportation system has shifted during the past decade to one that is more flexible and potentially more coherent in terms of its ability to reconnect transportation with land use and environmental planning (which together constitute major elements of growth management) at a regional scale. But many governance and finance incentives currently discourage regional focus and accountability. Leadership from the state might include implementing performance-oriented policy mandates at the regional scale, restructuring governing arrangements of Councils of Government, allocating regional transportation funds on a competitive basis for performance-oriented objectives, or establishing authority to raise regional gas taxes if linked to coordinated transportation and land use investments.<sup>22</sup> Without such steps, there is little systematic incentive for local governments to focus on transportation needs defined regionally. Similarly, reforms will be needed to overcome current fiscal and regulatory land use incentives that work against regional coordination, for example by providing incentives for land development oriented to regional transportation needs, or by restructuring local finance so it relies less on the sales tax and more on the property tax.

## **Water Investment Planning Under Stress**

Water policymaking during the 1990s underwent a governance transformation nearly as profound as for transportation, and for many of the same reasons. In the face of scarcity, conflicts among competing water uses became acute. Governance reforms to overcome conflicts and gain efficiencies through cooperation became imperative.

Passage of laws such as the Clean Water Act and the Wild and Scenic Rivers Act during the 1970s established new water quality standards and mandated that the needs of a new water constituency be accommodated – wildlife and plants. However, by the 1990s, traditional regulatory mechanisms, which relied on centralized, bureaucratic control of major specific “point” sources of pollution, and piecemeal, species-by-species preservation of natural habitat, had come under attack (Mazmanian and Kraft, 1999). New policies promoted a more integrated, bioregional approach to regulation instead, such as through watershed-level management of pollution and natural habitat. For example, environmental lawsuits of the 1980s prodded the U.S. Environmental Protection Agency (EPA) to enforce regulations regarding environmental and health standards for bodies of water. For those that are “impaired,” states are now required to establish total maximum daily loads (TMDLs) defining

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<sup>22</sup> Governor Schwarzenegger's recently released *California Performance Review* contains extensive recommendations for improving efficiency in state government, and may provide some indication of the current direction of state policymaking. Transportation-related recommendations include implementing performance-based management techniques such as life-cycle costing, developing better system performance measures, devolving authority through performance-oriented contracts, public-private partnerships, transferring 6,500 state highway lane miles to local agencies, increasing revenue through a new tax on vehicle miles traveled, and expanding use of high occupancy toll lanes to reduce congestion. Many of these recommendations align closely with our own, but a few (such as transfer of state highway lane miles to local agencies) appear to be mainly intended as cost-savers for the state budget.

acceptable levels of daily pollutants. However, although California's regulators aim to establish nearly 400 TMDLs, only about two dozen are now complete (Hanak and Barbour, 2005).<sup>23</sup>

By the mid-1980s, water problems loomed in California. Reports warned of critical groundwater subsidence problems and potentially severe supply shortfalls in coming decades (Reisner, 1993). Conflicts began to coalesce around competing needs for water flowing through the San Francisco Bay Delta. The delta, a 700-square-mile region where the San Francisco Bay meets the state's two biggest rivers, is a multiuse area that is key to California's water supply systems. The largest wetland habitat in the western United States, it also forms the hub of California's two largest water distribution systems (the CVP and the SWP) and numerous smaller ones, which provide 40 percent of California's drinking water and irrigation for 45 percent of the nation's fruits and vegetables (California Legislative Analyst's Office, 1996; Landy et al., 1998).

A severe drought from 1987 to 1992 brought conflicts to a head. Urban users and environmentalists chafed as agricultural users continued to receive their guaranteed allotments for the first three years of the drought, while many local governments imposed conservation measures, and salmon in the Bay Delta neared extinction as their water supply was reduced by almost 90 percent (Reisner, 1993). The federal government upped the ante in 1992 with passage of the Central Valley Project Improvement Act, mandating diversion of CVP water for environmental uses. With fish species being listed as endangered, the U.S. EPA announced it would issue quality standards for the delta, after having warned the California State Water Resources Control Board for over ten years that it needed a stronger plan. However, more freshwater flows for environmental purposes would require a reduction for farms and drinking water. The delta became the most contested area of water rights in the state (Landy et al., 1998; Hundley, 2001).

A similar set of controversies erupted in Southern California. The drought of the early 1990s raised fears about a looming constraint known as the "law of the river." Adjudicated by federal courts in 1963, California is limited by law to 4.4 million acre-feet annually of water from the Colorado River. However, because surpluses have been available, California has been using up to 800,000 acre-feet above its annual share since then. California relies heavily on Colorado River water, which supplies 14 percent of water needs statewide, and 65 percent in Southern California (Brackman and Erie, 2002). As neighboring states - Arizona in particular - have developed more intensively, pressure on supplies has increased. By the 1990s, the U.S. Secretary of the Interior began pressuring California to reduce its usage, and local agencies began jockeying for position within the looming constraint.

Thus, challenges in water policy during the 1990s mirrored those in transportation. New interests and objectives demanded a place at the table. Environmental regulations helped

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<sup>23</sup> Other examples of the bioregional approach to environmental regulation, integrated with local land use, include amendments to the federal Clean Water Act passed in 1987 that strengthened nonpoint source pollution control programs. By the late 1990s, the state government stepped up enforcement of local nonpoint programs in response, such as for controlling urban stormwater runoff (Ruffolo, 1999). Also, the state government established the Natural Communities Conservation Planning (NCCP) program in 1991 to integrate long-range land development plans with multispecies habitat conservation at a bioregional scale (Murphy, 1999; Rempel et al., 1999; Pollak, 2001a and 2001b).

reorient water policymaking – like transportation policy – toward more integrated planning at a bioregional scale. As demand grew, resources also were more constrained. Just as in transportation, the traditional solution to the dilemma -- to build new supplies -- is far more difficult today. Water supply infrastructure is also “built up”; there are few untapped rivers left in the state, and those that remain are well protected by environmental laws. The prohibitive cost of building new dams also works against traditional supply-side solutions (Brinkerhoff, 1999).

Thus, just as in transportation, the challenge facing policymakers is to make better use of existing resources. Central challenges relate to governance – how to reduce the costs of conflict, overcome traditional institutional barriers to wring out efficiencies from coordination, and better allocate costs and benefits.

## **A New Era in Water Policy**

The water conflicts that erupted during the early 1990s highlighted the need for new governance arrangements to overcome conflicts and gain efficiency through coordination. This imperative prompted new management techniques, a shift in traditional water alliances, and bold new governance arrangements that have changed the face of water policymaking in the state. As in transportation, policymaking authority was shifted away from state bureaucracies during the 1990s to regionally oriented multistakeholder processes. However, the new collaborative water initiatives were developed in a somewhat ad hoc manner compared to the systematic shift in governance arrangements applied in the transportation sector. In water policymaking, many governance problems remain pressing.

Perhaps the best-known collaborative water initiative is CalFed, a new approach to state water planning organized to address escalating conflicts over the Bay delta. To develop a long-term plan for saving and restoring the estuary, state and federal negotiating bodies were created in the early 1990s representing 15 water agencies. An advisory committee representing urban, environmental, agribusiness, and other interests also was created. The process aimed to coordinate CVP/SWP operations, adopt mutually acceptable water quality standards, and devise a long-term plan for supply reliability, levee stability, and environmental and water quality (McClurg, 2004).

The goal of CalFed was efficiency through coordination; all parties had incentives to cooperate as negotiations offered the chance to establish certainty in the face of increasing constraint (Brinkerhoff, 1999). Certainty became a major stumbling block, however, as users demanded guaranteed future allocations and environmentalists argued that existing science could not adequately predict future habitat needs. In this respect, CalFed encountered planning challenges also faced in other efforts to integrate long-range infrastructure, land use, and environmental plans (such as for transportation and air quality, or land development and habitat preservation for endangered species) (Barbour, 2002). Environmental laws often establish clear, health-based policy standards, but even the best current scientific methods cannot provide airtight predictions about the effects of future growth and development. Government leadership is critical in helping mediate the allocation of future risk in more integrated long-range planning agreements. In the case of CalFed, the federal government brokered a compromise by agreeing to absorb the cost of uncertainty. Any additional

allocations needed for new listings under the Endangered Species Act would be purchased with federal funds from willing sellers, not taken through regulatory action (Landy et al., 1998; Saxton, 2000).

“Within six months CalFed cut through the thicket created by years of bureaucratic and interest group infighting to announce interim water-quality standards” in 1994 (Hundley, 2001, p. 408). However, efforts to develop an implementation plan were more protracted. A series of alternatives was released, one including a modified version of the Peripheral Canal. Facing continuing controversy, Governor Gray Davis and U.S. Interior Secretary Bruce Babbitt intervened to help fashion a compromise in 2000.

The first, seven-year phase of an ambitious 30-year plan had a projected cost of \$8.7 billion. With proposals intended to please all parties, the plan called for a portfolio of strategies including conservation, delta restoration, elimination of barriers to water transfers, a doubling of groundwater storage, regulatory changes to promote groundwater management at the basin level and watershed protection, levee maintenance, the establishment of a state Environmental Water Account to manage water for endangered species protection, and the raising of dams (Martin, 1999; Vogel, 1999; Lewis and Clemings, 1999; Hundley, 2001). Discussion was deferred on the controversial new canal. Costs would be shared roughly equally among the federal and state governments and local user fees, reflecting, as much as possible, the principle of “beneficiary pays” (McClurg, 2004).

Although CalFed attempted to please all parties, controversy resurfaced once decisions were taken to legislative bodies for funding. Competing lawsuits and funding bills were advanced in the courts and the U. S. Congress, some of which redirected priorities from the agreed-upon plan. As federal support lagged in particular, the program quickly ran short of funds, although incremental steps were accomplished using proceeds from two state bonds (one sponsored by citizen initiative) (Taughner, 2001; Doyle, 2001; Krist, 2002; Brackman and Erie, 2002; McClurg, 2004). In 2004, the federal government approved \$395 million for CalFed, only about one-sixth of the amount proposed in the original bill (Doyle, 2004). With little progress made to clarify and apply the “beneficiary pays” principle, CalFed funding remains precarious and contested (California Legislative Analyst’s Office, 2004b). Major governance conflicts also erupted in late 2004 – specifically about side agreements negotiated among state and federal agencies and major water users to increase pumping from the delta to the southland (Boxall, 2004; Leavenworth, 2004). With the integrity of the CalFed process viewed as threatened by some participants (specifically, those excluded from the talks), observers considered Governor Schwarzenegger’s role critical in determining the outcome (Leavenworth, 2004).

Schwarzenegger’s potentially pivotal role in the future of CalFed reflects the ongoing importance of state leadership in brokering resolution of persistent conflicts. Indeed, CalFed itself is the direct descendant of the SWP, with an equally ambitious scale and scope in its aim to meet and balance water needs among competing uses across the state. However, the planning landscape has changed since the 1950s, and CalFed exemplifies the change. Rather than expand infrastructure capacity primarily by building new supply, CalFed does so also by managing and coordinating demand – among users (for example through water markets), and over time (through water banking, for example). Reflecting this shift in objectives, CalFed

forms a striking contrast to the SWP in its institutional focus. Rather than an engineering bureaucracy established to build a “big piece of plumbing,” CalFed is an ongoing consensus-building and planning institution. Its strategy is compromise – mutual gains through coordination. In all, the program would create an integrated, more efficient water supply system in which environmental needs are addressed and funded along with other users.

CalFed has proved more difficult to implement than the SWP, however, even after the outlines of agreement were reached. Political differences perhaps inevitably hardened as CalFed’s decisions were taken up by the authorizing and regulatory bodies – in particular, once somebody was asked to pay. The conflicts parallel governance challenges in transportation, suggesting that voluntary consensus-building exercises alone are insufficient to produce focused policies and lasting settlements in the absence of a state policy framework of funding, mandates, and incentives to support coordination. This weakness renders current infrastructure plans more difficult to implement than those of the past.

In this context, the role of state leadership also must be reconsidered. In Pat Brown’s day, the governor could broker deals behind closed doors that were translated into long-term commitments. Today, any such agreements are more likely to be undone by advocacy groups in the courts or by subsequent administrations. It has become more critical for Pat Brown’s successors to invest leadership skills and clout in strengthening institutional support for ongoing collaborative, coordinated water policymaking.

Similar controversies in Southern California in the 1990s were addressed in a similar fashion. During the 1990s, with a view to the looming law of the river constraints, Southern California water agencies pursued nearly a decade of contentious negotiations (Totten, 2004). For example, the Metropolitan Water District of Southern California (MWDSC) – the wholesale water agency that supplies large portions of the Southland – and the San Diego County Water Authority (SDCWA) entered into protracted negotiations with the Imperial Irrigation District (IID) during the mid-1990s to obtain some of its water in exchange for paying for mandated conservation measures. As conflicts persisted, Governor Davis and Interior Secretary Babbitt entered the fray, warning the agencies that if they could not resolve their differences, a resolution would be imposed on them (Hundley, 2001).

In 1999, the outlines of an agreement were achieved (called the 4.4 Plan). It relied on water transfers to the urban sector and conservation in the agricultural sector, using methods such as land fallowing, canal seepage recovery, desalination, groundwater banking, and “conjunctive use” -- or the purchasing of supplies for storage underground as reserves against times of need (Totten, 2004). A fifteen-year time frame was established for California to reduce its use of Colorado River water to the legal limits, and usage limits and transfer arrangements involving third parties were established. When talks broke down again in 2003, the U.S. Department of the Interior forced a resolution by cutting California’s allotment of Colorado River water (Krist, 2003).

The regional approach to integrated water management exemplified in CalFed and the Colorado River Plan also has been promoted at a smaller scale in California. Starting in the early 1990s the state began to encourage systematic groundwater management planning by

local agencies.<sup>24</sup> In California, local groundwater accounts for about 30 percent of urban and agricultural uses in the state, but traditionally the state government has provided little oversight of local agency management practices (Totten, 2004; Dowall and Whittington, 2003).

In addition, the state has promoted regional (surface) watershed management initiatives.<sup>25</sup> Multistakeholder watershed initiatives – many of them “grass-roots” efforts -- increased dramatically during the 1990s, organized partly in response to new regulations on nonpoint source pollution, TMDLs, and endangered species, and also because of explicit support by federal and state agencies. By 2000 the Natural Resources Law Center counted 85 such initiatives in California, most in urbanized areas (Kenney et al., 2000). The state took another step to promote more concerted local water planning in 2001 with passage of requirements for residential development projects to demonstrate availability of adequate water supplies in order to proceed.<sup>26</sup> This requirement establishes a closer link between water planning and local government land use policy.

Research on the effectiveness of collaborative local water management initiatives reveals the same opportunities and challenges that characterize other collaborative processes discussed in this report. On the positive side, the initiatives can produce innovative, integrated solutions linking water quality, water supply, and land use. For example, local governments in San Bernardino County have experimented with linking storm water management to aquifer recharge by reducing impervious surfaces and directing run-off flow (Hanak and Barbour, 2005). On the negative side, one small-scale study of on-the-ground outcomes of watershed initiatives concluded that only about half produced measurable ecological benefits (Kenney et al., 2000). Some observers note that collaborative watershed initiatives work best as a supplement to traditional regulatory approaches rather than a replacement, and that local government land use practices are critical to success (River Network, 1999; Kenney et al., 2000).

Just as in transportation planning today, efforts to encourage efficiency and coordination have not been limited to support for new institutional arrangements. As in transportation, water planning increasingly relies on innovative “demand management” and supply-side techniques (and hybrids among them) to increase efficient use of resources. For example, a series of steps in the 1990s helped establish water markets in California, in which supplies are traded among willing purchasers and sellers. Water markets are a form of demand management parallel to congestion pricing in transportation; by more closely matching costs

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<sup>24</sup> A 1992 law (AB 3030) provided a systematic procedure for local agencies to develop groundwater management plans. However, in 2003, the state’s Department of Water Resources determined that many adopted plans were merely boilerplate summaries of existing programs and not all were being actively implemented (Totten, 2004). New legislation passed in 2002 (SB 1938) conditions receipt of state funds for construction of groundwater projects on clearly defined objectives and monitoring protocols for groundwater levels, water quality and subsidence in local groundwater management plans.

<sup>25</sup> The Integrated Watershed Management Program, established in 2002, facilitates watershed-level planning for quality and supply reliability. The Integrated Regional Water Management Planning Act of 2002 authorized regional multipurpose water management planning and directed DWR to target grants and loans to help promote it. Bonds passed in 2000 and 2002 (Propositions 13, 40, and 50) allocated over \$2 billion for regional management and watershed protection programs.

<sup>26</sup> SB 610 requires that new residential development projects of more than 500 units demonstrate availability of adequate water supplies. SB 221 imposes a similar requirement at the point of subdivision map approval.

and benefits, they aim to encourage more efficient allocation and use (Hanak, 2003). In 1991, the governor created a water bank in the Department of Water Resources to enable the state government to buy and sell water. The 1992 Central Valley Project Improvement Act also included provisions for water markets. Furthermore, the Environmental Water Account envisioned as part of CalFed relies on purchases from willing sellers to allow the state to manage water for environmental needs.

The plate tectonics of state water politics shifted in 1991 when MWDSC altered its position on water marketing, announcing support for provisions in the Central Valley Project Improvement Act facilitating water markets (Fulton, 1993; Hundley, 2001). MWDSC's new stance angered its traditional allies, San Joaquin Valley growers, who had always counted on MWDSC support for projects to bring new supplies to the region. MWDSC's announcement amounted to public acknowledgement that it might no longer be able to meet commitments to its member agencies, and would seek to purchase supplies from willing sellers (Fulton, 1993; Hundley, 2001).

Conservation is another demand management technique being aggressively pursued especially by coastal water districts through programs such as promoting use of low-flush toilets and water recycling. MWDSC's 1996 Integrated Water Resources Plan, designed to wean the agency off Colorado River water, encourages greater efficiency among its urban customers (Hundley, 2001). For example, MWDSC offers incentives to member agencies that produce from local supplies, which has led to development of new desalination plants and other programs (Svete, 2002).

Another innovative strategy, conjunctive use, is being pursued by more than 65 water agencies in the state that now operate groundwater recharge programs (Totten, 2004). Their success often depends on the ability to purchase supplies from other agencies. At the core of conjunctive use lies a contentious issue in California water politics and governance—groundwater management (Totten, 2004). Traditionally, water policymaking in California has been highly fragmented and localized, with the large state water systems supplementing supplies furnished by thousands of local and regional agencies. Local sources and management practices—for groundwater in particular—are not carefully monitored by the state (Dowall and Whittington, 2003). Although California uses more groundwater than any state, it and Texas are the only Western states without comprehensive groundwater management regulatory systems (Totten, 2004).

Various concerns now propel a more concerted approach to groundwater policy. Groundwater basins are being overdrafted by an estimated 1 to 2 million acre-feet per year, leading to potentially critical land subsidence problems. Water quality is another worry, as all of the state's groundwater basins are contaminated to some degree. Conjunctive use strategies are difficult to implement without adequate information and monitoring, while the lack of clear groundwater policy also complicates water marketing. A major fear is that farmers may sell surface water and pump groundwater in its place, thus depleting underground reserves (Totten, 2004). Although steps have been taken to strengthen state groundwater management policies, a clear regulatory framework still has not been established.

Thus, California has been moving incrementally toward a more coordinated system of state and regional water planning. The imperative driving this process is inescapable, as

looming constraints such as the law of the river collide with new demand from expanding urban areas. For California to meet estimated levels of need for the environment, population growth (at existing levels of use), prevent further cuts to agriculture, replace Colorado River supplies, and restore groundwater use to sustainable levels, an increase in supplies from other sources of 7 to 9 percent over 2000 levels would be needed by 2030. However, with continued implementation of current best management practices in urban water conservation and a moderate increase in water marketing, a more realistic estimate of new supplies needed could be less than half as high (Hanak and Barbour, 2005).

At the heart of current developments in water policymaking lies governance reform. The state is slowly creating a more coordinated institutional framework to better allocate costs and benefits and to integrate water policymaking within and across regions, and across environmental and economic needs. Such goals are evident in the recent draft update to the State Water Plan, which aims to integrate the regional plans – CalFed and the emerging 4.4 Plan – along with the new regional integrated watershed management policies (California Department of Water Resources, 2003). The plan relies on a stakeholder agreement process and, like transportation planning, on performance measurement of numerous management scenarios and “study plans” that vary assumptions for urban and rural land use, industrial activity, conservation efforts, and other factors. The plan indicates that the state is moving toward a system in which water needs are systematically evaluated, and in which water is reserved in times and locations of excess supply, and transferred to areas of need as required.

However, just as in transportation, the obstacles to effective governance are substantial. A more coordinated system must overcome a high degree of institutional fragmentation, with thousands of local water districts operating relatively independently across the state. And as in transportation, agreements reached through voluntary collaboration are easier to reach in theory than to implement in practice. Furthermore, some incentives work against efficiency and coordination, such as the lack of a strong framework of laws and public subsidies to promote sustainable groundwater management. Thorny questions also persist about how to allocate costs and risks for meeting environmental water needs in the state.

How can the state government strengthen water policy? As in transportation, state reforms should provide a coherent policy, governance, and fiscal framework of incentives and – when required – mandates to promote coordination and efficiency. Groundwater regulations and outcome-oriented performance standards such as TMDLs could be strengthened to help provide focus for regional plans. Fiscal responsibilities must be clarified, for example by resolving how the “beneficiary pays” principle is applied. Support could be increased for regional management initiatives that promote state goals and objectives. The role of state leaders in brokering major water conflicts also undoubtedly will remain critical, as CalFed, the Colorado River plan, and other ongoing collaborative initiatives evolve. In today’s policy environment, the long-term stability of water planning relies on commitment from multiple stakeholders to resolving conflicts in an ongoing, coordinated way; state leaders should avoid the temptation to broker “side” deals with certain parties for the sake of political expediency and focus instead on strengthening collaborative processes.<sup>27</sup>

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<sup>27</sup> Recommendations in the *California Performance Review* related to water supply include moving governance of CalFed and the SWP to a new state Infrastructure Department, defining and implementing

## Higher Education Under Stress

Higher education facilities planning was an orderly process for decades because of the stability of the Master Plan's governance system. Today the system seems near a breaking point. Budget cuts and rising demand brought pressure even as other major demographic and economic forces altered the premises on which it operated. As in the other sectors studied, new management and governance techniques are being considered to break down traditional barriers and help increase efficiencies. However, more than for transportation and water policy, basic policy goals must be clarified in higher education before investment planning can be stabilized.

The early 1990s were a turning point for higher education. Just as enrollments began climbing, a severe state budget crunch led to student fee increases and other cost-cutting measures (such as caps on enrollment growth) that raised questions about the durability of the Master Plan's commitment to a low-fee education for all Californians (Douglass, 2002).<sup>28</sup> Enrollments dropped by 200,000 and college-going rates among high school graduates in the state slipped below the national average (Breneman, 1998). However, even after the economy improved and funding was restored, policymakers faced a looming concern – a sharp projected increase in enrollment demand (termed a “tidal wave”) during the 2000s as the children of the baby-boomers reach college age. From 2000 to 2012, the college-going age group (18 to 24 year-olds) is expected to grow at about one-and-a-half times the rate of the entire population (California Department of Finance, 2004). Higher education enrollment is expected to increase by 26% from 2003 to 2012 (California Department of Finance, 2003b).

A flurry of reports issued in the late 1990s and early 2000s raised concerns about capacity and access.<sup>29</sup> A combination of higher demand, rising costs, and declining state support suggested to many that the system is fundamentally challenged. The reports warned that state resources would prove inadequate to accommodate rising enrollment demand if higher education continued to operate as in the past, as college and university campuses were reaching the limits of their space capacity. State support for higher education has suffered a long-term decline as a share of the state budget. After climbing rapidly during the early 1980s, state general funds per full-time student (adjusted for inflation) dropped by 36 percent from 1987-88 to 1993-94, never regaining levels of the mid-1980s for UC and only recently for CCCs and CSU (CPEC, 2003, Displays 13-15). Unpredictable boom and bust cycles in state funding

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performance measures and a long-term funding plan for CalFed, developing a comprehensive floodplain disaster avoidance program, devolving authority for some SWP functions to a users' consortium, promoting regional water planning, and integrating state, regional, and local water plans with one another and with other development planning processes.

<sup>28</sup> State and federal aid dropped by 7% from 1990 to 1994, the budget of the California Student Aid Commission declined by 10% from 1991 to 1992, and student borrowing increased 94% between 1990 and 1993, higher than the national rate (Breneman, 1998).

<sup>29</sup> See for example, California Postsecondary Education Commission (CPEC) (1995a, 1995b, 2000); California Higher Education Policy Center (CHEPC) (1996); Benjamin and Carroll (1998); California Education Roundtable (1998); and California Citizens Commission on Higher Education (CCCHE) (1999). More recent proposals are in California Legislative Joint Committee to Develop a Master Plan for Education (2002); Dowall and Whittington (2003); Murphy (2004); California Legislative Analyst's Office (2004a).

also have hampered long-term planning. At the same time, costs for operating higher education and for constructing facilities have risen faster than inflation (Benjamin and Carroll, 1998; CCCHE, 1999; Douglass, 2002). Modernization and maintenance needs also are increasing.

During the recession and severe state budget crunch of the early 2000s, the dilemma in higher education funding became acute. Student fees were increased sharply, and expected enrollments dropped because of fee hikes and course cancellations.<sup>30</sup> In early 2004, over 7,000 qualified applicants were initially denied admission to UC and CSU; diverted to community colleges, they were guaranteed transfers by junior year. Although funding was later restored in the state budget, this was the first such violation for UC of the access tenets of the state's Master Plan since 1960.

These enrollment cuts were the product of reduced operating budgets, not a lack of facilities. The outlook for higher education capital budgets actually improved substantially during the early 2000s with passage of state and local bond measures (de Alth and Rueben, 2005). By then, the need for new space was potentially severe. In 2004, CPEC projected a capacity shortfall of over 685,000 full-time-equivalent students by 2013, or one-third of projected enrollment, without new construction or efficiency measures (CPEC, 2004; also see Hanak and Barbour, 2005). However, such projections have become less reliable in recent years, as fee hikes and cuts in operating budgets altered enrollment rates and demand.

Fee hikes, budget cuts, and enrollment caps throw in doubt the state government's ability to meet Master Plan goals. But at the same time, the suitability of the Master Plan for addressing current needs is also being questioned. The Master Plan deliberately insulated higher education from politics, allowing planning for instruction and facilities to proceed in an orderly fashion for decades. Each segment has largely defined its own needs and the sum has been considered to represent the state's interest in higher education (Shulock, 2004). However, the veneration and "set-in-stone" quality of mission definitions also made it more difficult to consider statewide, regional, and student needs that cut across the traditional boundaries. Critics charge that the three public systems tend to function as independent silos, hampering student transfers and coordination among segments (Breneman, 1998; Benjamin and Carroll, 1998; CCCHE, 1999; Bracco and Callan, 2002; Harrison, 2003; Shulock, 2004).

The tripartite structure suited the state when it embodied the social consensus on which the original Master Plan was founded. Higher subsidies per student for the "high quality" state institutions - in particular the world-renowned University of California system - were justified based on its research role (which supports economic growth), and because of the equity and access provisions of the Master Plan. Its promise of equal opportunity was articulated when a more homogenous population was believed to have equal access to resources, so that ascension through the tiered levels of the higher education system would be based on choice and merit.

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<sup>30</sup> Between the fall of 2001 and the fall of 2004, undergraduate fees for a full academic year in the UC system were raised 61 percent, in the CSU by 52 percent, and in the CCC system by 105 percent (see Hanak and Barbour, 2005). Expected enrollments at CCCs declined by roughly 10 percent in 2003-04, largely because of fee hikes and cuts in course offerings. However, measured in terms of full-time-equivalent students, the decline was considerably smaller, about 1.7 percent (California Legislative Analyst's Office, 2004d).

Social changes have eroded those original assumptions. Californians are highly diverse in terms of resources and needs. Thus, discussion is refocused today on needs of individual student learners and families– the consumers of higher education – rather than on the needs of the segments. By 2025, non-Hispanic whites are expected to decline to one-quarter (27%) of the state’s college-going age group (18- to 24-year-olds), while Hispanics – the state’s fastest-growing racial/ethnic group – are expected to increase to half (California Department of Finance, 2004). These demographic changes carry important consequences for education, as college-going, transfer, and graduation rates vary considerably among groups, and are particularly low for Latinos, African Americans, and Native Americans. Trends such as rising student fees, diverging participation rates among groups, and declining transfer rates among segments raise fears about the state’s ability to maintain the promise of economic opportunity enshrined in the Master Plan.

Meanwhile, a college education is verging upon the minimum requirement for economic success (Betts, 2000). With education levels strongly correlated with income, and income disparity widening, higher education has become more of a dividing line in society than in the past. The Master Plan has served as a social leveler, promising opportunity to all students with merit, and a wider social benefit through a better-prepared workforce and citizenry. When recent budget cuts threatened access, these basic goals appeared threatened. Especially in today’s labor market, differential access to higher education can work to reinforce patterns of economic inequality – not the intention of the Master Plan.

Balanced against concerns about maintaining access are concerns about preserving quality. Reformers worry whether the education system is adequately preparing future workers – a parallel to concerns in the Pat Brown era. A companion PPIC study suggests that California’s industries will require more skilled labor in the future (Neumark, 2005). But considerations about quality also raise basic disputes. Given state budget constraints, should funding for the high-quality research institutions be prioritized, given their key role in supporting high-tech and other knowledge-based industries in the state? Or should more funds be targeted to community colleges, which play a growing role in educating the workforce? If so, should funding for academic, vocational, or remedial education be prioritized?

The community colleges will play an important role in preparing the state’s future workers. The largest such system in the nation, the CCCs are expected to enroll 67 percent of new students from 2002 to 2012 (California Department of Finance, 2003b). Their mission is diverse, from providing remedial education, vocational and workforce training, and non-credit courses for self-improvement, to preparing students for transfer to four-year institutions. Overall, the proportion of college students completing only two-year terminal degrees has risen over time (Hayward et al., 2004). However, individual CCCs also vary considerably in respect to course offerings, transfer rates, and relationships with other institutions, reflecting their closer connection to local communities compared with the other two segments. Like K-12 schools, CCCs are partially funded through local property taxes.

The CCCs now face pressure from all sides: an increasing need to provide remedial education, pressure to improve lagging transfer rates and educate a higher share of the state’s lower division pre-transfer students, and growing demand for two-year terminal vocational

and academic programs. In balancing these objectives with more limited funds, CCCs will face complex trade-offs between access and quality.

## **A Revised Master Plan?**

Just as during the Brown era, large enrollment demand is prompting a radical rethinking of the state's higher education system. Reformers seek to reaffirm, but also to renegotiate, elements of the Master Plan. Common themes in recent reform proposals include the need for budgetary stability, productivity and efficiency increases, and governance changes to improve linkages among segments and with K-12 education.<sup>31</sup>

Reforms aimed at creating more predictable financing and a more efficient higher education system echo concerns of the Brown era. However, cost-cutting techniques are hard to negotiate in education because the quality and accessibility of the good itself (education) are both so highly prized. For example, a "user fee" approach to financing, endorsed as an efficiency measure in the water and transportation sectors, is more problematic for education. In the Brown era, the trade-off between access and quality was resolved by combining deeper subsidies for research-oriented institutions with broad subsidies for access to other institutions. Today, however, proposals to institute higher fees (or tuition) endanger one half of that quality/access bargain – the commitment to universal tuition-free access. On the other hand, increases in means-tested financial aid are implemented to effectively offset increases in fees, then equity goals of the system might be redefined without being lost.

Proposals to enhance productivity and efficiency include varying fees (or prioritizing access) according to the level of education, training, and profession, and in order to encourage more rapid graduation rates (CPEC, 1995b; Benjamin and Carroll, 1998; Dowall and Whittington, 2003). Such "demand management" techniques would end the universality of student subsidies and the "transparency" of admissions standards under the Master Plan in favor of a more strategic and targeted approach. Others advocate reallocating students from high-cost to lower-cost institutions to help reduce costs. However, this proposal could run directly counter to equity concerns about differential access to higher quality institutions.

A streamlined transfer function is advocated, as are performance and accountability standards, both for learners and for institutions.<sup>32</sup> The impulse to develop more systematic coordination across governmental boundaries and to develop an accountability structure to guide more strategic investment is similar to developments in the transportation and water sectors.

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<sup>31</sup> See footnote 29 for references. For summaries of proposals in major recent reports see Breneman (1998) and CPEC (1999).

<sup>32</sup> Two bills passed in 2004 take steps toward creating a "seamless" transfer function. SB 1415 establishes a common course numbering system for the 20 highest-demand majors across the segments, while SB 1785 requires CSU campuses to develop "transfer admission agreements" with students intending to take a systemwide agreed-upon core curriculum. Recent legislation (SB 1331) would have created a performance accountability structure for higher education. Governor Schwarzenegger vetoed this bill, although the *California Performance Review* he commissioned specifically endorsed it as a model.

Other proposals more directly address the construction and use of facilities. In contrast to the approach of forty-five years ago (when smaller campuses were considered preferable), today many observers discourage the building of new campuses, encouraging expansion of existing ones instead (CHEPC, 1996; CCCHE, 1999). Methods such as instituting full year-round operations also are urged (California Legislative Analyst's Office, 1999 and 2002a; Dowall and Whittington, 2003).

Proposals for governance reform also are central today. Regional coordination among educational institutions (K-12 and higher education) is advocated to better address student and workforce needs (Breneman, 1998; CCCHE, 1999; Bracco and Callan, 2002; Douglass, 2002; Harrison, 2003). Others advocate redefining the missions of the segments, for example through greater differentiation to streamline services (Benjamin and Carroll, 1998), or through a polytechnic model for some portions of the CSU system (Douglass, 2002).

Governance of the community college system has received particular attention. Critics charge that the system lacks cohesion and adequate oversight (CCCHE, 1999; Little Hoover Commission, 2000; Murphy, 2004). Proposed reforms include accountability measures and performance incentives. Reforms to strengthen CPEC also are advocated (CCCHE, 1999). Charged with coordination across the segments, CPEC is among the weakest such bodies in the nation (Breneman, 1998).

Reflecting many of these concerns, the legislature's Joint Committee to Develop a Master Plan for Education released a proposal to revise the Master Plan in 2002. It recommends greater linkages with K-12, more centralized governance of the CCC and K-12 systems, greater collaboration among segments through means such as expanding joint doctoral programs and cross-segmental instruction, development of an accountability system for all segments, strengthening of the transfer function (including creation of a transfer degree), and greater use of alternative facilities. Governor Schwarzenegger's recently released California Performance Review picked up on many of these proposals, calling for consolidating education policy from preschool through post-graduate level, reorienting the educational system to meet the needs of the labor market, implementing performance-based accountability standards, streamlining transfer requirements, establishing CCC enrollment priorities, and permitting CCCs to offer bachelor's degrees.

The Performance Review recommendations would redefine the state's goals for education while also reorganizing governance arrangements to address them. The governance proposal -- to consolidate CCC, K-12, and CPEC under control from the governor's office -- would transfer the powers of the CCC Board of Governors to the state community college chancellor, who would report to the governor's education secretary. This arrangement would substantially alter the governance system of the Master Plan, which established autonomy for the three segments. In effect, it would create a unified K-14 system, while allowing the CSU and UC systems to retain autonomy.

Governance issues are central today, but the debates reflect even more fundamental underlying questions. The combination of funding constraints and demographic and economic change has forced a discussion on whether and how basic goals of the Master Plan should be reframed, revised, balanced and traded off. It has become unclear whether the Master Plan even serves its basic goals adequately today. However, it is also unclear what sort of renewed

commitment to higher education voters would be willing to support. These issues must be addressed before proper governance arrangements can be identified to carry out the state's commitment to higher education.

Leadership from the state government is needed to ensure that the structure of the Master Plan does not collapse through erosion and neglect, without a new structure constructed carefully to take its place. As in the other sectors studied, the appropriate structure may require reconstituting institutions established during the Brown era. The challenge, as in the other sectors, is to step back from traditional assumptions about functional and jurisdictional boundaries to consider needs that cross those boundaries — the needs of students, families, and the state economy. Governor Schwarzenegger's proposals take a step in this direction, articulating not just a reoriented governance system, but also a new vision for the goals and priorities of the system itself.

## **New Calls for Reform**

Developments in transportation, water, and higher education during the past decade have begun to alter the basic policymaking framework established during the Pat Brown years. Just as during the postwar era, the shift to a new governance approach reflects the need to reorient decision frameworks to match new realities. In higher education, demographic and economic change underlies the emerging imperative to reconsider the social contract of the Master Plan. The goals of higher education policy must be articulated before appropriate governing arrangements can be implemented. In water and transportation policy, environmental and fiscal constraint now compels an effort to balance and integrate more complex policy goals at an efficient scale, in particular one matching metropolitan economic and natural systems (for example, the scale of commuter sheds, housing markets, and air and hydrologic basins).

Reforms underway in the transportation and water sectors signal the emergence of a new governance approach in which planning authority is devolved from single-function state bureaucracies to more collaborative, often regional decision processes among different levels of government, and across jurisdictions, agencies, and stakeholder organizations. A major objective of this devolution is to integrate planning with local land use policy at a regional scale; a collaborative approach to governance allows for that without usurping local government prerogatives.

A collaborative approach to integrated planning is politically expedient in a state with a strong tradition of local control, and strong and diverse regions, where "one-size-fits-all" state growth policy could be ineffective, and would be politically unpalatable. Even the top-down approach of the Pat Brown era supported local land use choices through its functional orientation. Furthermore, even though consensus on growth policy goals was clearer during the postwar era, the state-dominated approach soon met with resistance. As today's planning imperative is as much to facilitate deliberation on how to balance policy goals and objectives as to implement new solutions, a heavy-handed approach by the state government is less feasible or wise.

However, although collaborative approaches may be politically expedient, they tend to be ineffective if they lack clear policy focus, or if they are undermined by conflicting incentives or mandates. As it stands, the new collaborative approach has been grafted onto a system whose fundamental lines of authority and responsibility have not much changed, and thus the extent to which policymaking has been altered should not be exaggerated. State departments are still organized largely on a single-function basis, land use is still a prerogative of local governments and not the state or regions, and very little regulatory or taxing authority is actually vested in regional governmental bodies.

California lacks a clear policy framework to support coordinated growth management. The lack of policy focus is evident, for example, in the absence of clear objectives and priorities to guide transportation plans, the conflicting mandates and incentives that influence local land use policy, and the lack of a clear regulatory framework for groundwater management. Many funding and governing incentives still deter a comprehensive focus on problems and solutions defined regionally or statewide – from the structure of COG governance and transportation funding allocations, to decentralized governance in water policymaking, to the set-in-stone quality of segmental boundaries in higher education. As a result, gains from collaborative efforts are often limited or ephemeral. For example, CalFed is currently threatened by funding conflicts and political negotiations side deals. Many regional transportation plans resemble stapled-together wish lists of priorities of multiple jurisdictions more than clearly articulated regional strategies, and smart growth plans and programs have made limited inroads.

Perhaps the clearest steps toward establishing a more unified state and regional growth policy framework during the 1990s involved system performance measurement. In each sector studied here, state and regional agencies made some progress in developing objective, performance-oriented measures of program outcomes. These measures allow trade-offs to be modeled among complex goals and alternatives, and they can facilitate more useful dialogue about costs and benefits of alternatives. Furthermore, they help provide a focus for planning and accountability in more collaborative governance frameworks. However, progress in this area has been slow and painful, reflecting not just technical but also political challenges. Ultimately, effective implementation of performance standards (as opposed to measures) will not emerge separately from a more strategic, coordinated state approach to growth management.

Many observers have concluded that a more strategic approach to state investment is needed. A series of reports on the state's infrastructure policy issued in the late 1990s called not just for substantial new investment in facilities and maintenance, but also for better strategic planning to target it wisely.<sup>33</sup> For example, the LAO argued that the lack of clear goals and objectives for growth and development both within and across state programs had produced an ad hoc, budget-driven process of infrastructure planning and financing “that has not and will not meet either the requirements of an aging statewide infrastructure or the need for new infrastructure to sustain a growing economy and population” (California Legislative Analyst's Office, 1998a, p. 3). This critique was echoed by the State Treasurer, who noted that “current needs assessments are not based on a comprehensive plan of investment nor are they centered around achieving the goals of sustained economic growth, environmental preservation, equality

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<sup>33</sup> See footnote 1 for citations.

of opportunity, and livability. Rather, they represent a list of projects compiled independently by various public agencies” (California State Treasurer, 1999, n.p.).<sup>34</sup>

In response to these concerns, a few incremental steps were taken at the state level to promote more integrated investment planning. In 1999, a new requirement was established for the governor to submit an annual five-year capital improvement plan. Two editions, released in 2002 and 2003, were useful in compiling data on needs in one document, but they generally failed to clarify overarching priorities (Legislative Analyst’s Office, 2002b). In 2002, Assembly Bill 857 was passed, requiring state agencies to develop consistent planning and spending priorities based on a set of “smart growth” principles – promoting infill development, protecting environmental and agricultural resources, and encouraging efficient development patterns. It remains to be seen whether these policy goals will be translated into effective program mandates.

Better coordination at the state level might well be considered a necessary, if not sufficient element in promoting effective regional planning. Given the state’s political traditions and multiple metropolitan regions, more strategic, coordinated state investment policies would not easily function as a substitute for intergovernmental collaboration and regional coordination, but as it stands, conflicting, uncoordinated policy mandates from the state hamper effective regional problem-solving.

Governor Schwarzenegger’s California Performance Review, an ambitious proposal for a bureaucratic reorganization of state government, contains more than 1,000 specific recommendations intended to make it more efficient and accountable. State administration would be consolidated into eleven “mega-departments,” including a new Infrastructure Department that would bring together 32 programs into six sectors under one roof: water; energy; transportation; housing, building and construction (including schools); telecommunications; and boating and waterways. The inclusion of housing programs expands the traditional definition of state infrastructure. Three oversight divisions would operate across the six sectoral divisions to integrate planning, programming, R&D, and financing. The stated purpose of the proposed consolidation is to facilitate more strategic, integrated planning.

It is too early to know which proposals from the California Performance Review will be supported by the administration or the legislature. However, the broad scope of proposed reforms, the emphasis on strategic, integrated planning, on performance standards to drive planning and investment, and the numerous administrative, governance, and fiscal reforms advocated to promote demand management and efficient service delivery all underscore the central message of this report -- that broad governance and fiscal reform is necessary to facilitate effective public investment and growth management. The review also contains numerous recommendations for strengthening regional planning coordination for the sectors studied in this report, and tying them together through smart growth approaches.

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<sup>34</sup> For a comprehensive evaluation of state infrastructure budgeting and planning at the cusp of the new millennium, see Neuman and Whittington (2000). Their report emphasized the extreme project orientation of state infrastructure finance, geared around the vicissitudes of the annual state budget cycle – a system in which “finance drives planning,” each department devised its own method for soliciting project ideas, and the State Administrative Manual, rather than a statewide plan or set of priorities, served as the default “control mechanism” for infrastructure budgeting.



# Toward 2025: The Governance Challenges of Public Investment

California is now potentially at a point of departure in its approach to public investment as important as that of the Pat Brown era. The state faces critical infrastructure challenges, but solutions of the past – in particular, large-scale facilities expansion – are less feasible now. To help in evaluating California’s chances for meeting its public investment challenges, this section identifies continuing trends, new opportunities, and obstacles to the state’s policymaking system as it affects the capacity to plan and provide for future needs.

## Characterizing the Trajectory of Change: Policymaking Complexity

One key task is to assess the trajectory of change in the policymaking system, identifying trends that have reshaped the state’s approach to infrastructure and that are unlikely to fade from the scene soon. In short, the following nine trends make it highly unlikely that another Pat Brown will ever appear to lead the state into a new era of massive facilities expansion. The overall theme that emerges is the increased level of complexity in state and local policymaking.

### *1. The decline of confidence in government.*

Not unique to California, residents tend to view government and politicians with distrust and suspicion (Baldassare, 2000, 2002). Despite the honeymoon period the current governor has enjoyed, and his contagious optimism and confidence, state government as a whole enjoys little confidence among the public, as PPIC statewide surveys have repeatedly shown. Residents are mildly more positive about their city and county governments, but even at that level believe that officials waste a significant proportion of revenues (Baldassare, 2004a, p. 24). Politically, therefore, today’s elected leaders are on a considerably tighter leash than Governors Earl Warren or Pat Brown and are unlikely to expend sizeable amounts of political capital on major (and perhaps controversial) infrastructure projects. Even the current popular governor may be constrained in what he can accomplish; his appeal during the campaign was based in part on promises to restrain the power of politicians and entrenched Sacramento interests.

### *2. Increased use of the popular initiative.*

The wave of citizen activism and antigovernment criticism of the 1960s and 1970s – some of it undoubtedly generated by the excesses of the mega-project era – found its institutional expression in the increased resort of Californians to voter initiatives, which have greatly expanded in numbers over the past quarter century (Silva, 2000). Expressing the decreasing level of confidence in government, many of these initiatives have sought to bypass public officials in the policymaking process or to limit their power and discretion. The active presence of the initiative process would appear to only increase the uncertainty of the policymaking environment for elected officials at the state and local levels, since their negotiations with interest groups to build agreements regarding public investments are subject to potential undoing by voters. The deals among college presidents, water users, and freeway

builders, cut in back rooms and on elite state commissions during the Brown era, would in the current period be vulnerable to possible end-runs by aggrieved interests resorting to the direct democracy process. At the local level, too, efforts by local officials to coordinate planning with neighboring jurisdictions may be undone by voter-led ballot measures.

### ***3. Reduced potential for “entrepreneurial” state policy leadership.***

A corollary of the above two trends is the reduced capacity of state policymakers in the legislative and executive branches to “get out ahead” of the public and craft visionary solutions to California’s infrastructure problems. Legislative term limits and staff reductions – both mandated by Proposition 140, a voter initiative – along with partisan polarization in the legislature – which has arisen both from gerrymandered redistricting and polarization in the electorate itself – limit the legislature’s capacity to build substantive expertise in areas like transportation or higher education, and its potential to craft a “middle way” solution that could appeal to Californians across partisan and regional divisions.<sup>35</sup> Voters’ willingness to support greater funding for infrastructure sometimes seems to come at the price of exacting further limits on governmental discretion, as successful state bond initiatives and other funding measures have tended to earmark spending for specific projects or purposes. In the executive branch, infrastructure building and financing agencies such as CalTrans and the Department of Water Resources are much less insulated than in the Brown era and have become oriented more toward managing and allocating the capacity of existing systems than to engineering new solutions.

### ***4. Many more interests at the table.***

Governance today is complicated by the multiple state, regional, and local agencies – many of them with single functions and still insulated from public scrutiny – that have been established since the postwar era to oversee infrastructure planning. Interest groups and so-called stakeholder organizations (a term that did not exist during the Brown era) have proliferated in recent decades, and many have full-time staffs and lobbyists in Sacramento. Notable among these groups are environmentalists, historic preservation groups, anti-tax organizations, neighborhood and localist groups opposing changes in “their backyards,” and groups stressing the importance of equity, civil rights, and environmental justice. As Altshuler and Luberoff note (2003, p. 228), “After 1970 the planning of mega-projects occurred in a very different climate. Groups fearful of harmful side effects were well armed with persuasive ideologies and new legal protections, already mobilized or primed to do so, and highly formidable in court if all else failed.” This trend has heightened the complexity of the deal-making necessary to change infrastructure policies, creating a minefield for governors and legislators seeking to strike out in new directions.

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<sup>35</sup> A participant in a Regional Infrastructure Dialogue held by the California Center on Regional Leadership in the San Fernando Valley on March 11, 2004, noted that, “Because of term limits, we have to start the learning and planning process over again with elected officials every few years, but we have to deal with 25-30 year problems.”

## ***5. Fiscal constraint pervades infrastructure investment.***

Today the costs of building new public facilities, or improving old ones, are far higher than in the Brown era, for reasons cited throughout this report. Voters have reacted to escalating costs of government and perceived inefficiencies by passing such ballot measures as Propositions 13 and 218, which have further limited the capacity of local governments in particular to use taxes and fees to fund public goods. In the resulting, fiscally constrained environment, governments have often focused on the need to meet basic funding needs of operational services, turning capital facilities into a luxury accessible only in years of bounty.

## ***6. The reduced emphasis of the federal government on bricks-and-mortar investment.***

For most of U.S. history, Congress lavished substantial attention on “internal improvements” such as dams and highways, given the relative lack of federal redistributive programs and the geographic basis of Congressional constituencies. The rise since the Great Depression of federal programs geared at assistance to individuals (Social Security, Medicare and Medicaid, welfare, and assistance to the disabled, among others) has shifted the federal budget increasingly toward transfer payments and away from physical infrastructure, in relative terms. Then too, federal spending on such controversial purposes as water storage and highways declined through the 1970s for the same political reasons that helped draw the state’s “golden era” of public construction to a close. Although federal infrastructure spending recovered in the 1980s and 1990s, federal involvement has splintered into new areas (such as homeland security equipment and more emphasis on mass transit facilities). Moreover, federal infrastructure programs have faced the same cost-escalation pressures as has the state, leaving little room for major new building programs.

## ***7. A movement toward devolution and concern with regional and local control.***

As the federal and state governments seemed to disengage from grand approaches to infrastructure provision — in part due to contentious local disputes that spilled into state and national policy arenas — local governments, regional governmental entities, and more ad-hoc public-private assemblages increasingly stepped into the policymaking void. Many policy innovations mentioned in this report have furthered this trend — for example, self-help transportation sales taxes, the regionalization of transportation investment, watershed management and water marketing, and the entire “smart growth” movement that cuts across many infrastructure sectors. Federal and state policymakers sympathetic to devolution, or wary of centralized responsibility, have often funded, enabled, or encouraged such tendencies, notably through such efforts as SB 45 and CalFed. The result is that any contemporary would-be Pat Brown in California would need to learn to work in careful partnership with these decentralized policy processes, and to be comfortable with the lack of direct state control over many investment decisions.

## ***8. Disjuncture between the electorate and the population as a whole.***

During recent decades, a very noticeable difference has emerged between the characteristics of the California population (young, by national standards, increasingly foreign-born, and majority nonwhite) and the characteristics of the state's registered voters (older, predominantly native-born, and nearly 70 percent non-Hispanic white). It is likely to take generations for the voting public to more closely approximate the adult population.<sup>36</sup> During the postwar era, by contrast, there was not such a notable demographic divide between voters and the general public (and overall rates of voter participation were higher). The current disjuncture highlights the challenges state and local leaders face in building consensus around a collective vision of serving Californians' future needs.

## ***9. Confusion and skepticism about goals for growth planning and investment.***

Californians today not only feel less confident about governments' ability to meet their needs, but also about how or if growth and development should be accommodated. Californians of many political stripes share suspicions about growth and its consequences, suggesting that motivations run deeper than narrowly defined self-interest. Voters demonstrate a continued willingness to fund greater public investment for purposes including schools, transportation, open space, housing, and water projects, but they feel more comfortable when funding is carefully targeted. This desire to limit the discretion of elected leaders may be understandable, but it also hampers their ability to craft comprehensive dialogues about the shape of future growth in the state. In a context of fiscal and environmental constraint, growth planning is now a complicated balancing act among multiple, sometimes conflicting goals and objectives for efficiency, equity, quality of life, and environmental protection. Although some decision-making frameworks have emerged in which such deliberation can occur (as described in this report), they are not widely known, and Californians still indicate substantial confusion and disagreement about how the state should prepare for its future (Baldassare and Cohen, 2005).

## **Opportunities and Obstacles for Future Innovation**

The world of public investment is clearly more complex and unpredictable than it was in California's "golden era" – if indeed such an era really existed. There is less consensus about the goals of investment and projects are more difficult to build and certainly more difficult to implement in a timely, low-cost fashion. But we suspect that if Californians fully considered the dimensions of the policymaking system that led to the state's renowned freeway, water, and higher education investments of the 1950s and 1960s, few would choose to return to that approach. The protections now offered to environmental values, community self-determination, mitigation of the harms of projects, and fiscal restraint – which, to be sure, can be carried to excessive lengths in some instances – are also values that most Californians would seem likely to embrace, at least in general terms. The transition from massive statewide engineering projects to a broader consideration of the costs and effects of potential investments across metropolitan areas ultimately seems a healthy one in a mature state.

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<sup>36</sup> For details, see Citrin and Highton (2002), and PPIC (2003).

Fiscal constraint and governance complexity have been double-edged swords for growth planning. Fiscal constraint has sometimes turned the state and local governments into competitors for resources, but it also has forced policymakers to consider ways to use resources more efficiently, prompting better coordination. Governance complexity can hamper decision-making, but effective collaborative arrangements may balance policy objectives and state, regional, and local needs and concerns more effectively than either imposed top-down solutions or fragmented laissez-faire localism. The challenge is to incorporate multiple points of view, not abrogate them.

In short, there is no putting the genie of policy complexity back into the bottle. Moreover, we suspect that the reasons for such complexity have much to do with democratic values of inclusiveness and full debate.<sup>37</sup>

Given all the obstacles and constraints, what can state leaders do to set a more deliberate course toward meeting future needs? First, consider emerging models that help point a way forward. In the midst of all the current obstacles outlined in this report (partisan gridlock, fiscal constraint, voter confusion and discontent, competing goals and objectives, and fractured planning and investment processes), new governance frameworks have emerged that establish more deliberative, comprehensive decision-making on growth. Though they may not look like the great infrastructure engineering plans of the past, processes like CalFed are, in their own way, equally impressive in scope and impact. As MWDSC's Vice President recently noted, "Though they are messy and difficult, participatory collaborative processes such as CalFed are the only way we are getting anything done in the state" (Quinn, 2004).

Second, consider the basic elements that make these emerging models work. Leaders now must often secure political agreements not on how to allocate more services and facilities, but how beneficiaries of state services can make do with less. A basic incentive for participation in collaborative arrangements today is mutual gains through more efficient use of facilities or resources. Stakeholders are drawn to the negotiating table not just by the promise of new facilities, but also often by the potential for gaining predictability in service delivery and regulation, and reducing transaction costs and regulatory requirements, through a more deliberate and coordinated approach to conflict resolution. Government leadership is critical in helping align incentives and in mediating the allocation of costs and risks to support effective processes and outcomes.

Rather than being based on gaining one-time political agreement for single-purpose blueprints for new facilities meant to address public works needs for several decades, the new models are more apt to rely on gaining political support for stable, pluralistic, ongoing decision processes. We are not suggesting that long-range investment plans are less important today than in the past, or that all cooperative planning processes will be ongoing. However, given the policymaking environment of constraint and complexity, today's plans are more likely to require periodic reevaluation, and the goal is to accomplish this in a coordinated way rather than through defaulting to conflict and short-term crisis management.

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<sup>37</sup> In this conclusion, we concur with Altshuler and Luberoff (2003, p. 288) in their national study of urban mega-projects: "Our own view is that on balance the constraints placed on mega-project development since about 1970 have been beneficial, and that future adjustments should be guided at least as much by concerns about pressures for excessive mega-project investment as the barriers to enough."

In spite of its weaknesses, the state's transportation planning system provides the state's most well-developed model for such a purpose. By providing clear rules and incentives to guide a stable process of ongoing intergovernmental planning coordination, it institutionalizes the development of long-range yet evolving (regularly updated) investment plans. However, although the transportation sector succeeds at keeping stakeholders at the table, it still lacks sufficient policy focus to produce plans with clear, regionally oriented objectives.

Effective state reforms for public investment should accomplish three inter-related goals: align incentives and costs (responsibility and authority), provide a policy focus, and foster strategic, coordinated decision-making processes for implementation. At the level of state departments and agencies, reforms can be more mandate-driven. The state government can clarify growth policy goals and priorities, translate them into quantifiable outcome-oriented policy objectives, and require more integrated planning to model alternative program scenarios. State investments and program priorities then should be made congruent with this strategic planning process.

However, the state also needs to foster more strategic, coordinated planning across levels of government, and in particular, within regions. A more coherent approach by the state toward its own investment policies will help greatly in this endeavor. Even without inter-governmental planning, the state can promote preferred regional outcomes just through more strategic targeting of its own investments and by aligning fiscal incentives. Similarly, ensuring greater funding stability would help stabilize planning processes and possibly make them less contentious. However, going further, state performance standards for growth policy objectives also could be used as the basis for preferential grants or loans to local and regional agencies that aim to meet the standards. Even further, state incentives might be made available on a regional basis contingent on collaborative development of regional plans that further state priorities.

Models for this sort of strategy exist. In particular, the new approach to environmental regulation that emerged by the 1990s emphasizes clear policy focus coupled with collaborative implementation at a bioregional scale. Programs like ISTEA (coupled with the Clean Air Act) and watershed initiatives mandate clear environmental and health standards, but leave implementation up to collaborative processes among multiple actors. These programs helped propel many of the collaborative planning innovations of the past decade, especially because they relied on developing closer links with local land use and infrastructure planning.<sup>38</sup>

Today, the state is less in need of new large-scale physical infrastructure than effective governance and fiscal infrastructure to help guide strategic investment. Rather than single, unified visions for state-engineered "solutions" in separate sectors, now the state needs a range of coordinated reforms to support integrated growth planning and management. Specific reforms to help establish a stronger framework might include:

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<sup>38</sup> Other states have gone further in applying this approach to policy areas other than environmental protection. For example, a transportation planning rule passed in Oregon in 1991 mandated that regional plans work to reduce congestion and per capita vehicle miles traveled, and that local governments orient land use designations and densities to support multiple transportation modes, infill development, and jobs-housing balance. Along with other growth policies and programs, including urban growth boundaries and protections for agricultural land, the new transportation rule prompted a dramatic shift in Portland's approach to development (Calthorpe and Fulton, 2000).

- Establishing performance-oriented state growth objectives and priorities to guide state and regional plans and investments;
- Reconsidering the governing arrangements of COGs;
- Establishing incentives for local governments – through tax base sharing, tax increment financing, targeted grants, loans, or regulatory relief – to promote state and regional growth objectives and neutralize adverse fiscal consequences of land use policies that promote the objectives;
- Raising gas taxes and other user fees to better align costs and benefits;
- Providing regional revenue-raising authority linked to coordinated capital investment and land use plans;
- Integrating local government planning requirements and the California Environmental Quality Act to promote more “up-front” coordination of environmental and development planning;
- Creating a framework for groundwater management regulation and funding;
- Resolving how the “beneficiary pays” principle is interpreted and implemented;
- Setting performance goals for institutions of higher education and tracking student progress;
- Promoting regional cooperation in higher education with a focus on emerging needs of the labor market.

Also key to effective growth planning will be to acknowledge and address voter skepticism and desire for fiscal constraint. Strategies might aim to promote more comprehensive dialogue and debate on integrated investment plans, while also respecting voters’ expressed preferences for local control, intergovernmental cooperation, and targeted investment. In spite of certain drawbacks, ballot and bond measures on new investment and development often form the most effective forums for dialogue and deliberation on growth concerns. One approach to incorporate voters in integrated investment decisions would be to authorize regional revenue-raising authority, subject to voter approval, to fund coordinated environmental and infrastructure improvement plans – for example including parks and open space along with transportation improvements and incentives to local governments to orient land use toward meeting regional goals and objectives.

Given fiscal and political pressures and constraints, lawmakers face a substantial incentive to ignore long-term fiscal and governance concerns in favor of short-term political victories or because they are busy “putting out fires.” However, the price for political expediency may be rising too high.<sup>39</sup> Meeting infrastructure needs now requires concerted

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<sup>39</sup> An example of a politically expedient, but short-sighted, policy choice is the recent resolution by the state administration and legislature with local governments of the fiscal stand-off that stymied land use reforms for more than a decade. In negotiating the state budget in 2004, local governments’ frustration over legislative “raids” of their revenues during budget crises became a sticking point. Local governments were promised protection from such raids in the future. However, the resulting agreement

governance and fiscal reform, because California has reached a point where basic institutional arrangements are inadequate. Necessary reforms may not appear as dramatic as grand facilities programs of the past, but they could be as far-reaching. State leaders must meet this challenge if future quality of life is to be fostered thoughtfully, and not by default. Postwar policymakers rose to a similar challenge, adapting governance and fiscal arrangements to meet changing needs. Should we ask less from our leaders today?

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mostly freezes in place the state-local fiscal structure established after Proposition 13, a structure that has long been criticized as inflexible, outmoded, and detrimental to state and regional land use objectives because it promotes “fiscalization of land use” (Speaker’s Commission on State and Local Government Finance, 2000). For these reasons, the LAO noted that the administration’s agreement with local governments “lacks overall policy coherence and, in exchange for short-term state fiscal relief, locks in place the current flawed state-local fiscal structure” (California Legislative Analyst’s Office, 2004e, p.17).

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